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(54) **USER INTERFACES FOR ALTERING VISUAL MEDIA**

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CPC ***H04N 23/959*** (2023.01); ***G06T 5/003*** (2013.01); ***H04N 5/2226*** (2013.01); ***H04N 23/69*** (2023.01)

(58) **Field of Classification Search**

CPC H04N 5/232125; H04N 5/2226; H04N 5/23296; G06T 5/003

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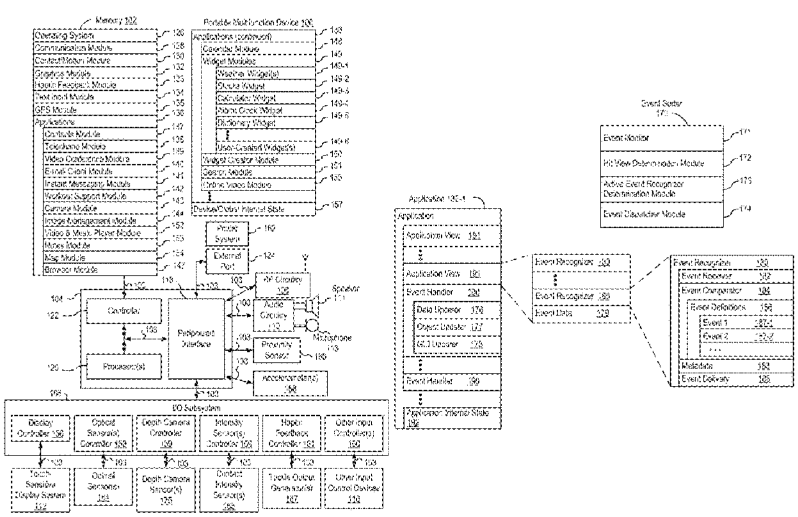
(57) **ABSTRACT**

The present disclosure generally relates to user interfaces for altering visual media. In some embodiments, user interfaces capturing visual media (e.g., via a synthetic depth-of-field effect), playing back visual media (e.g., via a synthetic depth-of-field effect), editing visual media (e.g., that has a synthetic depth-of-field effect applied), and/or managing media capture.

48 Claims, 87 Drawing Sheets



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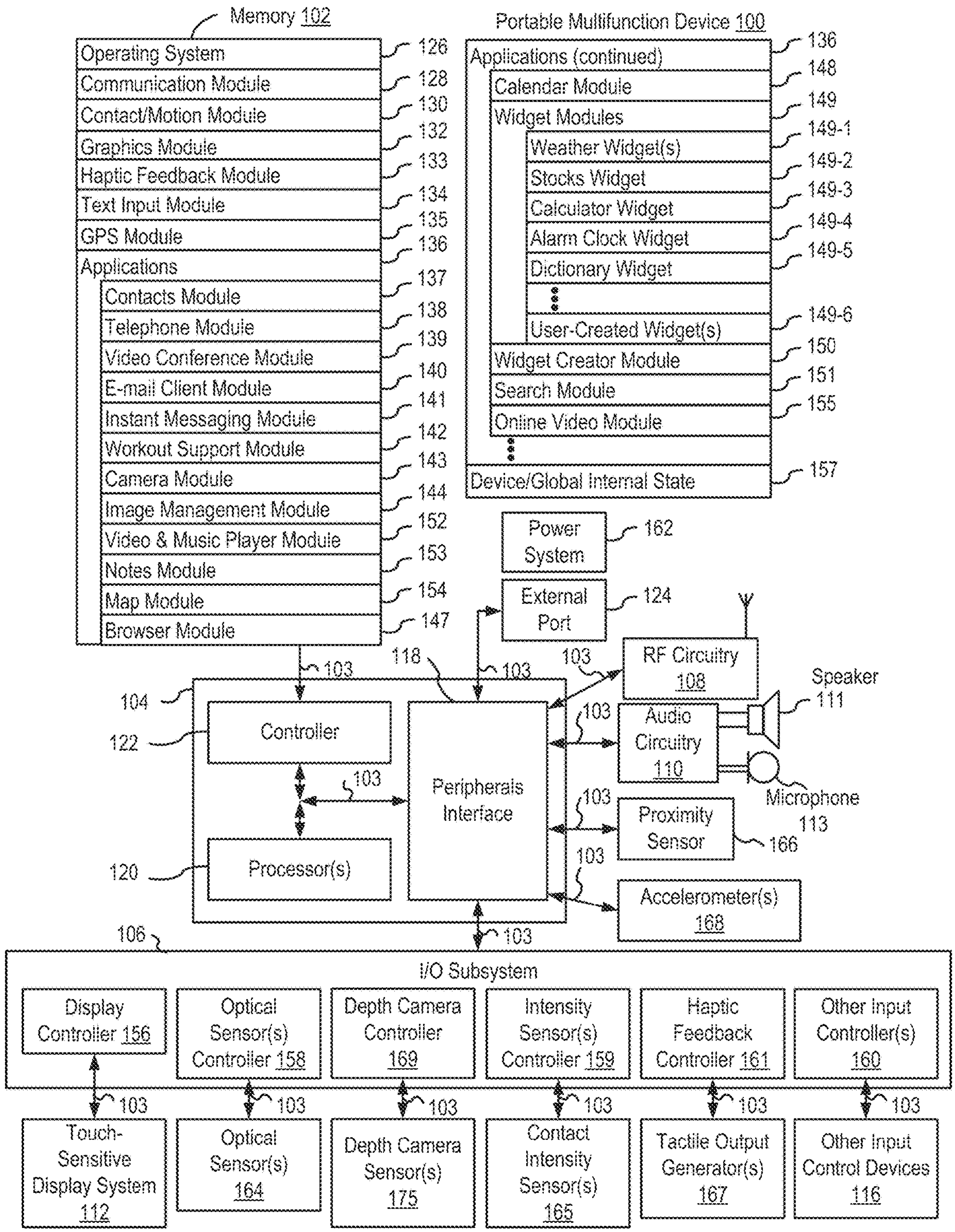
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Other Input Control Devices 116

FIG. 1A

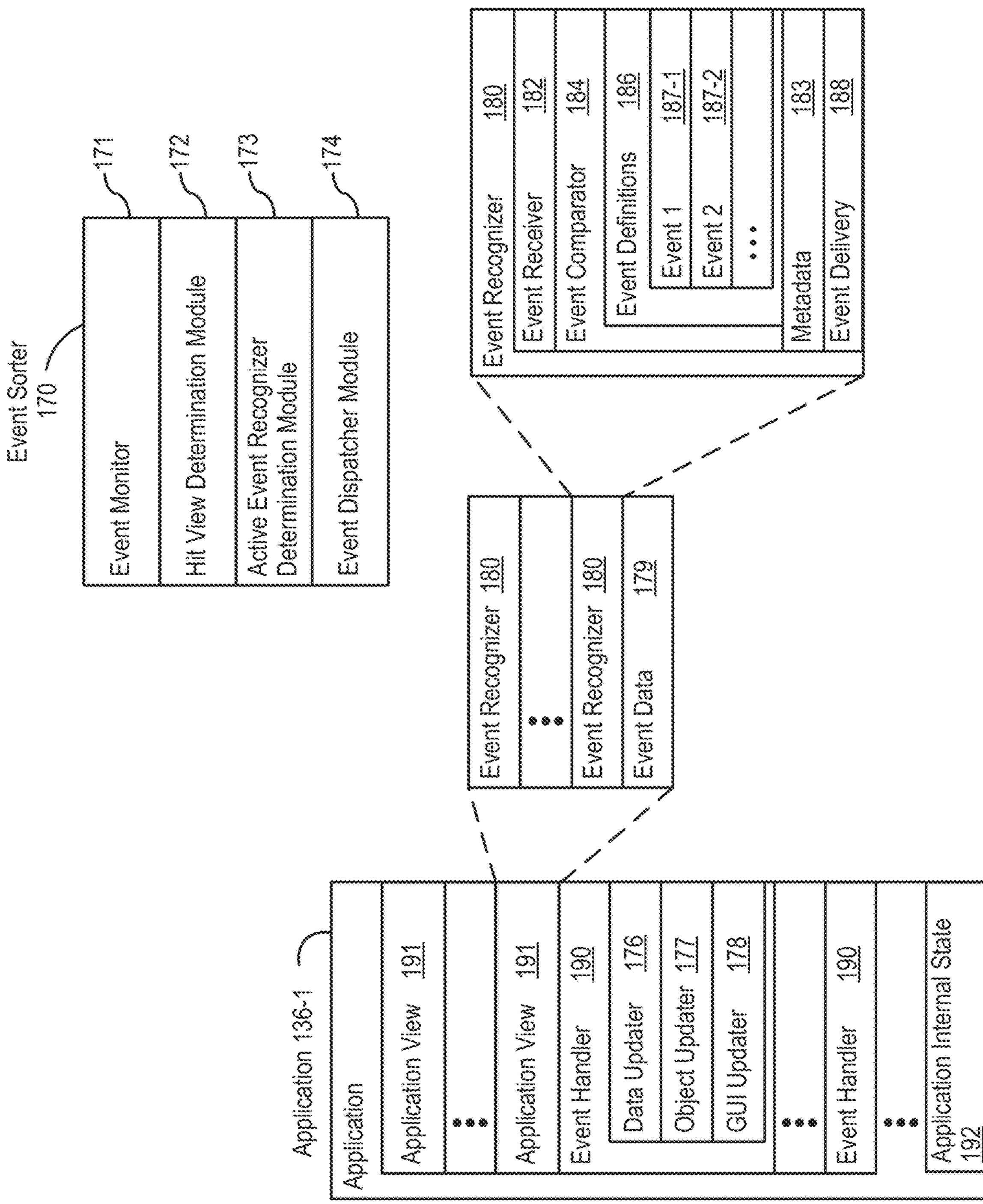

Event Sorter
170
Event Monitor
171
Hit View Determination Module
172
Active Event Recognizer Determination Module
173
Event Dispatcher Module
174
Application 136-1
Application
Application View 191
Application View 191
Event Handler 190
Data Updater 176
Object Updater 177
GUI Updater 178
Event Handler 190
Application Internal State 192
Event Recognizer 180
Event Recognizer 180
Event Data 179
Event Recognizer 180
Event Receiver 182
Event Comparator 184
Event Definitions 186
Event 1 187-1
Event 2 187-2
Metadata 183
Event Delivery 188

FIG. 1B

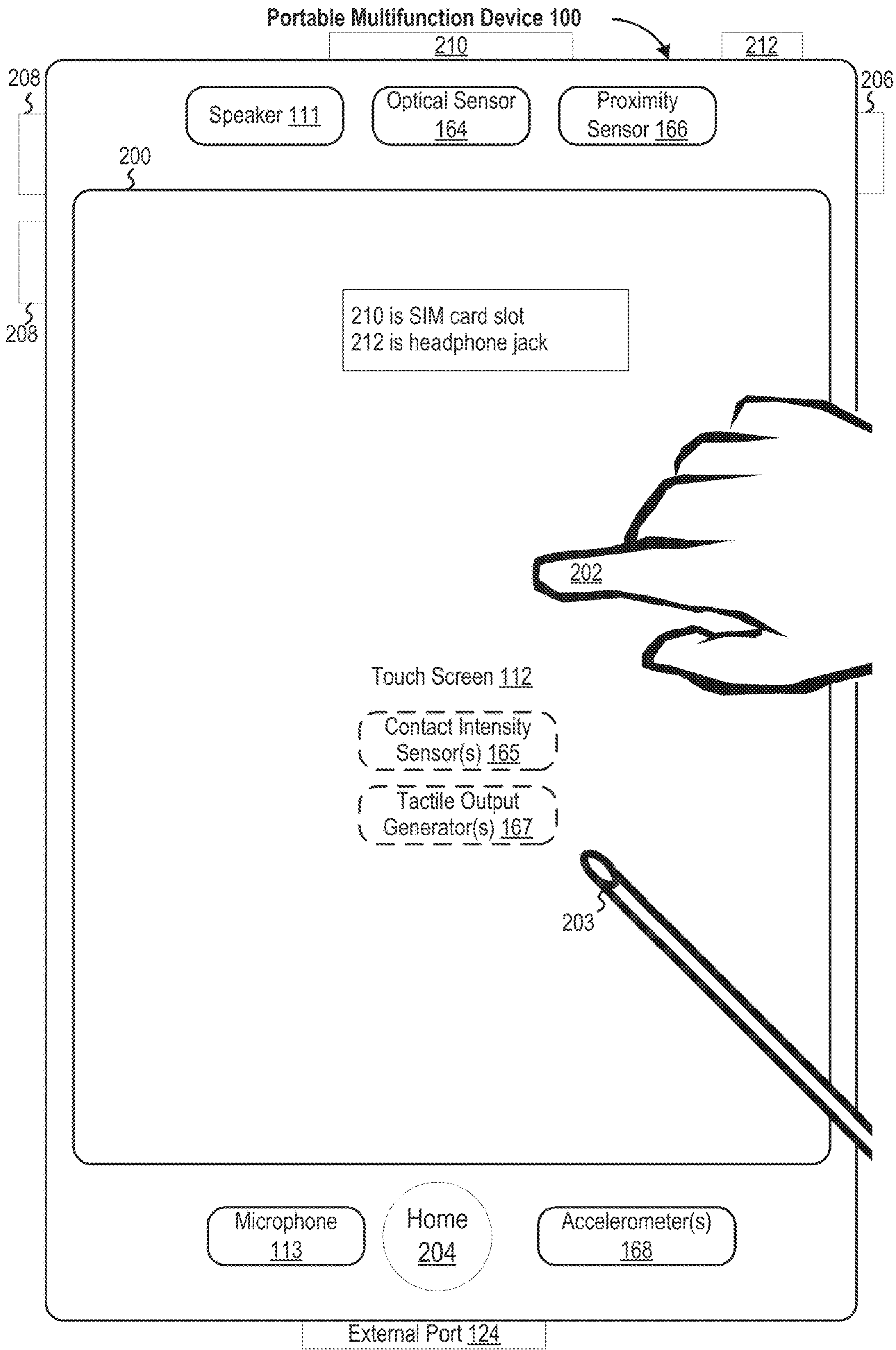
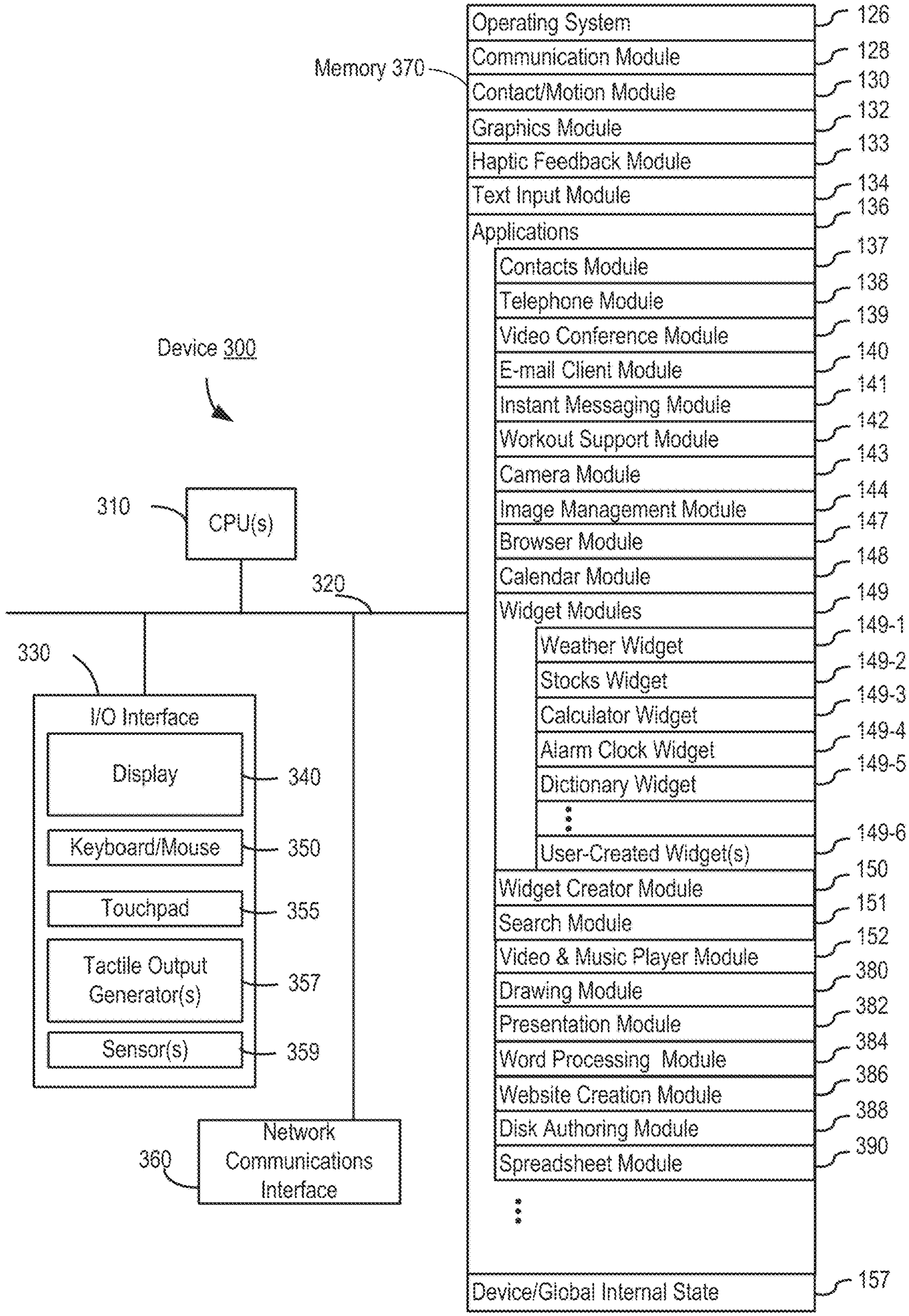

Portable Multifunction Device 100
210
212
208
206
Speaker 111
Optical Sensor 164
Proximity Sensor 166
200
210 is SIM card slot
212 is headphone jack
208
202
Touch Screen 112
Contact Intensity Sensor(s) 165
Tactile Output Generator(s) 167
203
Microphone 113
Home 204
Accelerometer(s) 168
External Port 124

FIG. 2



Device 300
310
CPU(s)
320
330
I/O Interface
Display
340
Keyboard/Mouse
350
Touchpad
355
Tactile Output Generator(s)
357
Sensor(s)
359
360
Network Communications Interface
Memory 370
Operating System
126
Communication Module
128
Contact/Motion Module
130
Graphics Module
132
Haptic Feedback Module
133
Text Input Module
134
Applications
136
Contacts Module
137
Telephone Module
138
Video Conference Module
139
E-mail Client Module
140
Instant Messaging Module
141
Workout Support Module
142
Camera Module
143
Image Management Module
144
Browser Module
147
Calendar Module
148
Widget Modules
149
Weather Widget
149-1
Stocks Widget
149-2
Calculator Widget
149-3
Alarm Clock Widget
149-4
Dictionary Widget
149-5
User-Created Widget(s)
149-6
Widget Creator Module
150
Search Module
151
Video & Music Player Module
152
Drawing Module
380
Presentation Module
382
Word Processing Module
384
Website Creation Module
386
Disk Authoring Module
388
Spreadsheet Module
390
Device/Global Internal State
157

FIG. 3

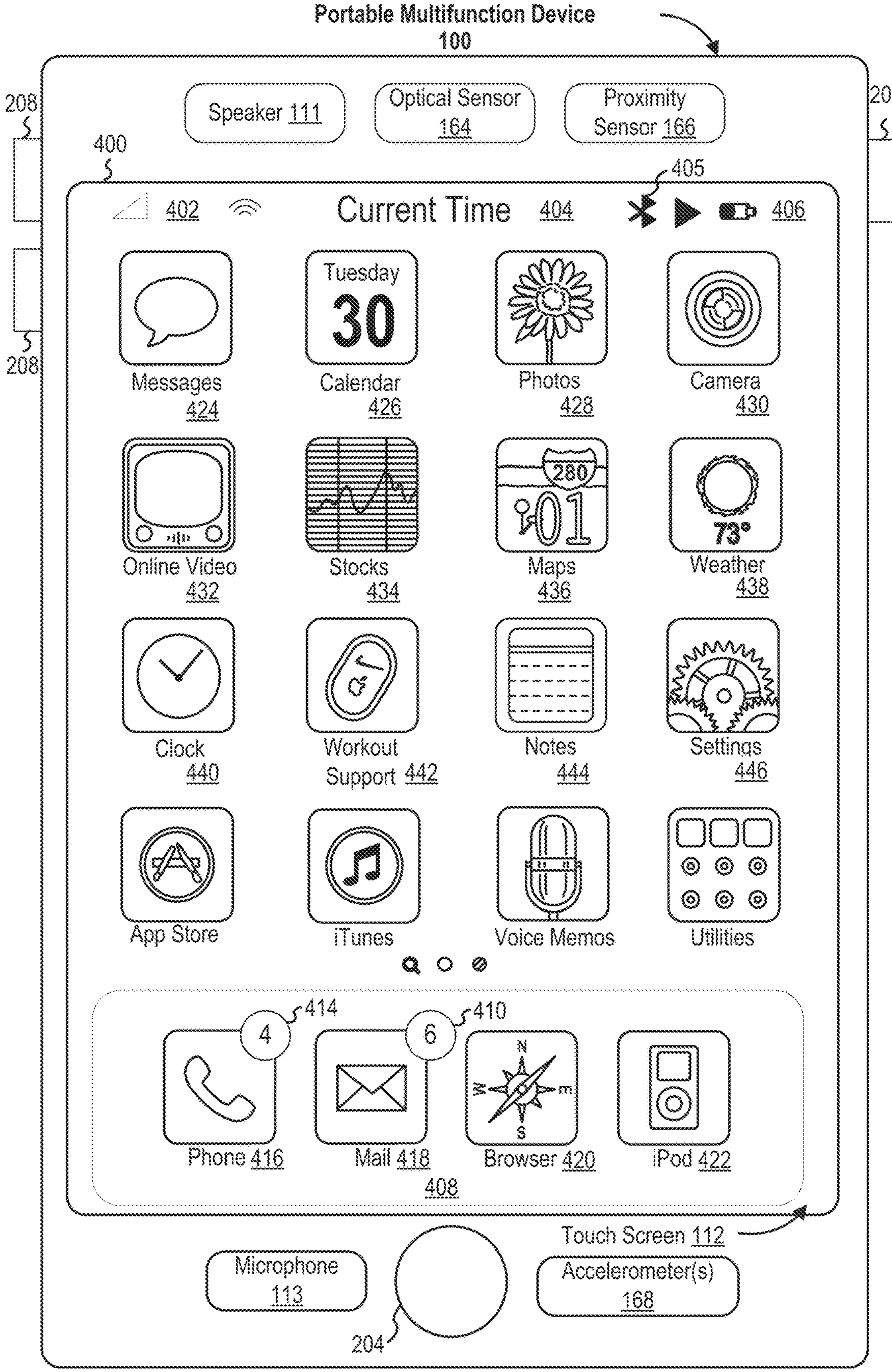

Portable Multifunction Device
100
208
208
206
400
Speaker 111
Optical Sensor 164
Proximity Sensor 166
402
Current Time
404
405
406
Tuesday
30
Messages 424
Calendar 426
Photos 428
Camera 430
280
73°
Online Video 432
Stocks 434
Maps 436
Weather 438
Clock 440
Workout Support 442
Notes 444
Settings 446
App Store
iTunes
Voice Memos
Utilities
414
410
4
6
N
W
E
S
Phone 416
Mail 418
Browser 420
iPod 422
408
Touch Screen 112
Microphone 113
Accelerometer(s) 168
204

FIG. 4A

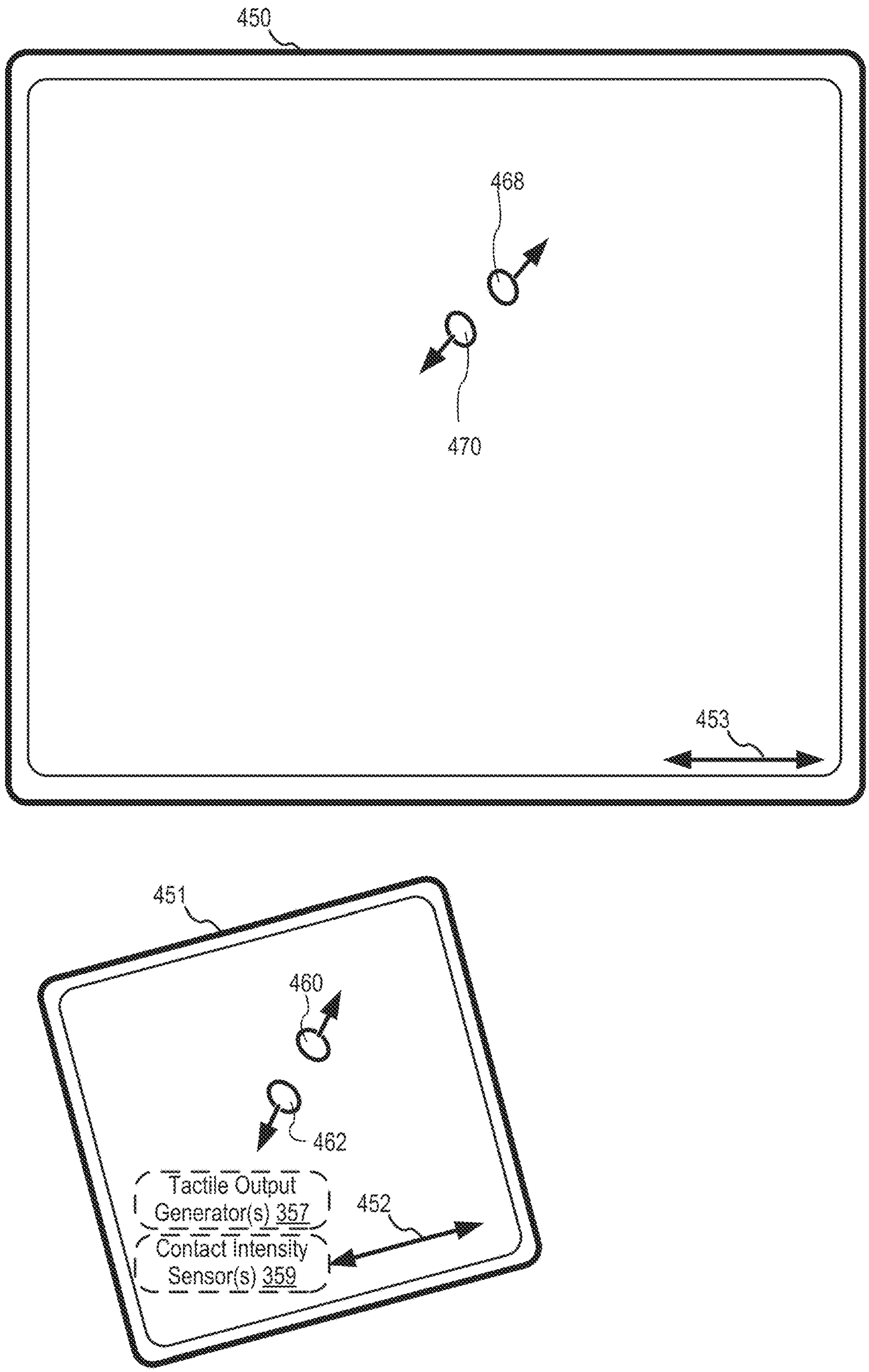

450
468
470
453
451
460
462
Tactile Output Generator(s) 357
Contact Intensity Sensor(s) 359
452

FIG. 4B

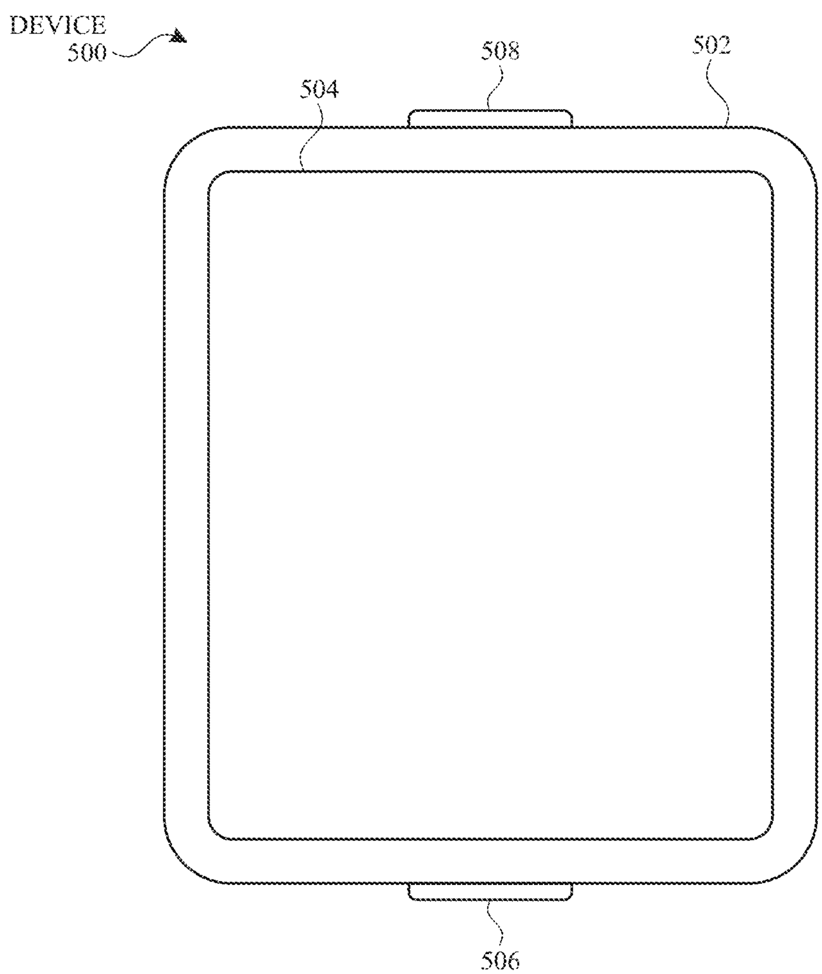
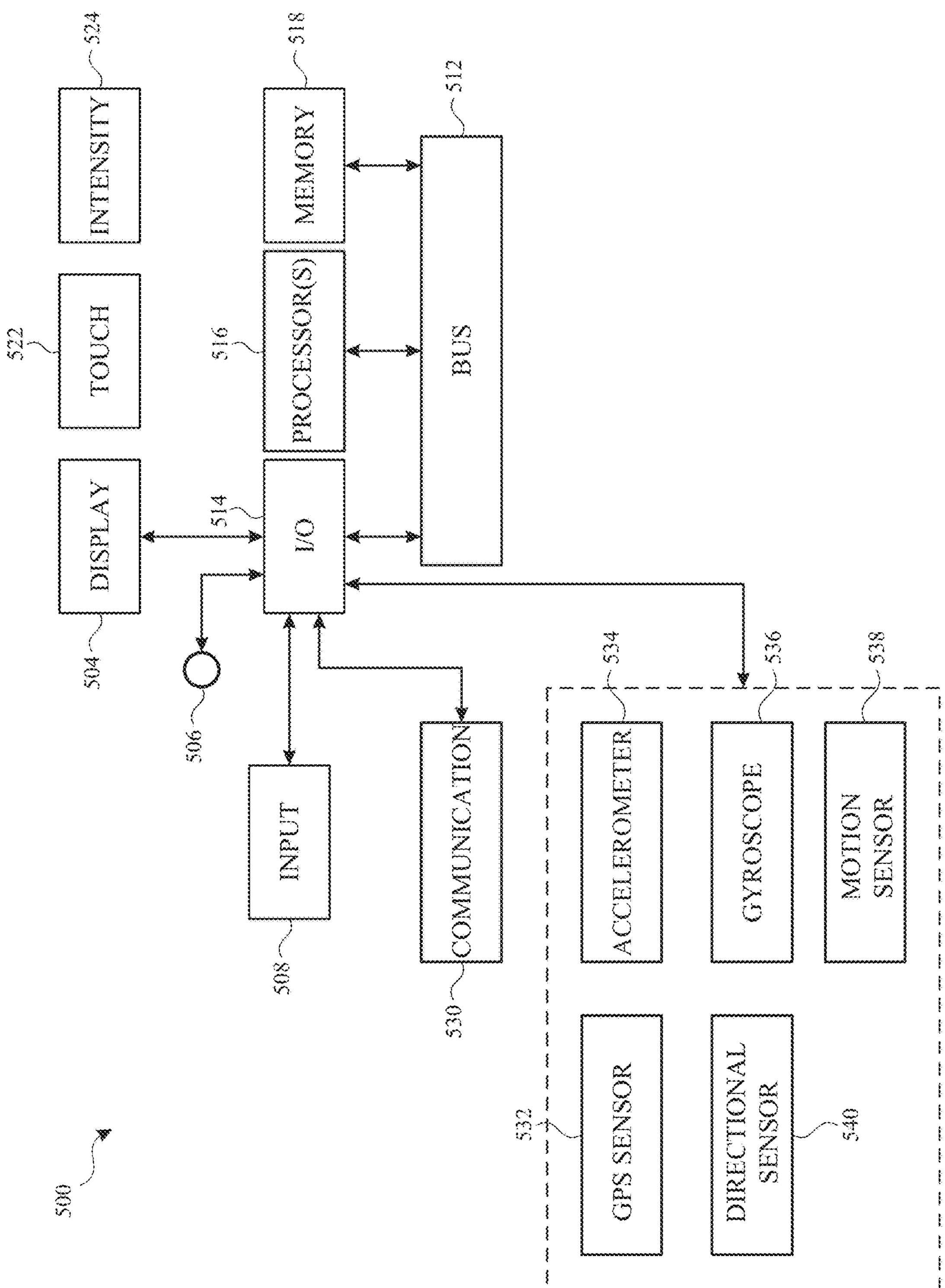


FIG. 5A



500
INTENSITY
524
TOUCH
522
DISPLAY
504
MEMORY
518
PROCESSOR(S)
516
I/O
514
BUS
512
506
INPUT
508
COMMUNICATION
530
ACCELEROMETER
534
GYROSCOPE
536
MOTION SENSOR
538
GPS SENSOR
532
DIRECTIONAL SENSOR
540

FIG. 5B

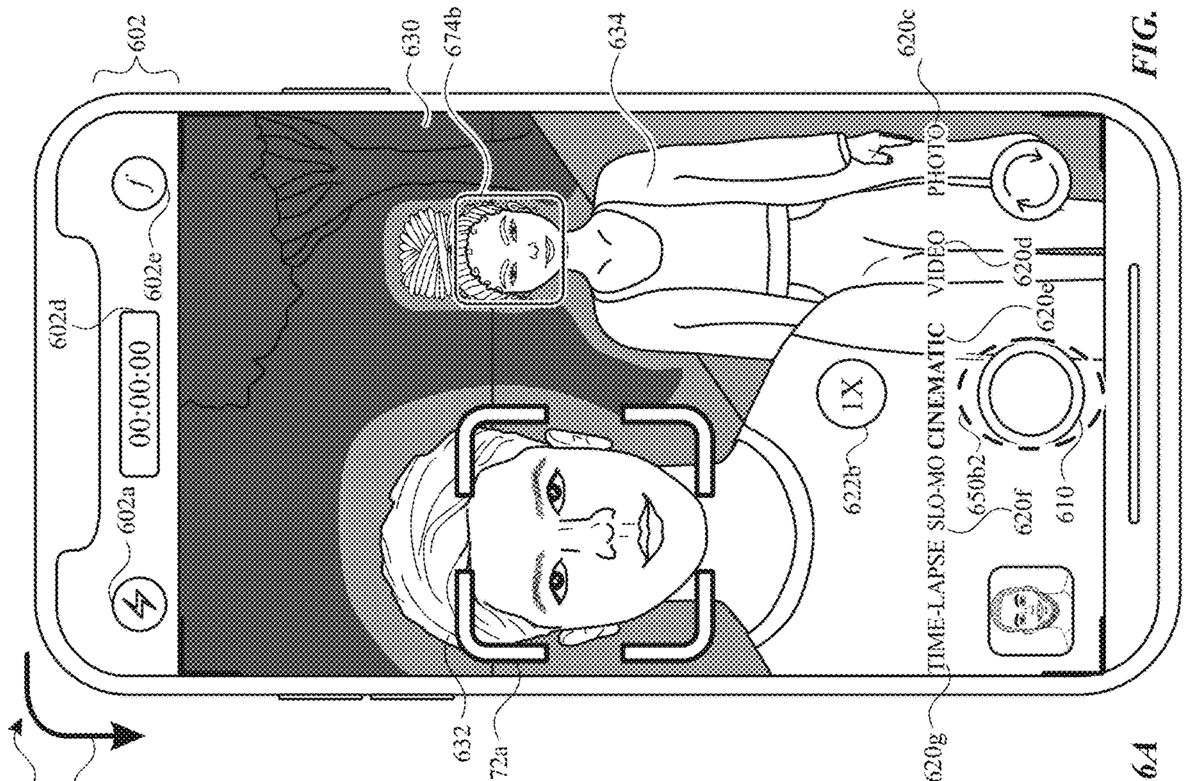

602
630
674b
634
620c
602d
00:00:00
602e
602a
PHOTO
VIDEO
620d
620e
CINEMATIC
SLO-MO
TIME-LAPSE
1X
622b
650b2
620f
610
632
672a
620g
600
650b1

FIG. 6B

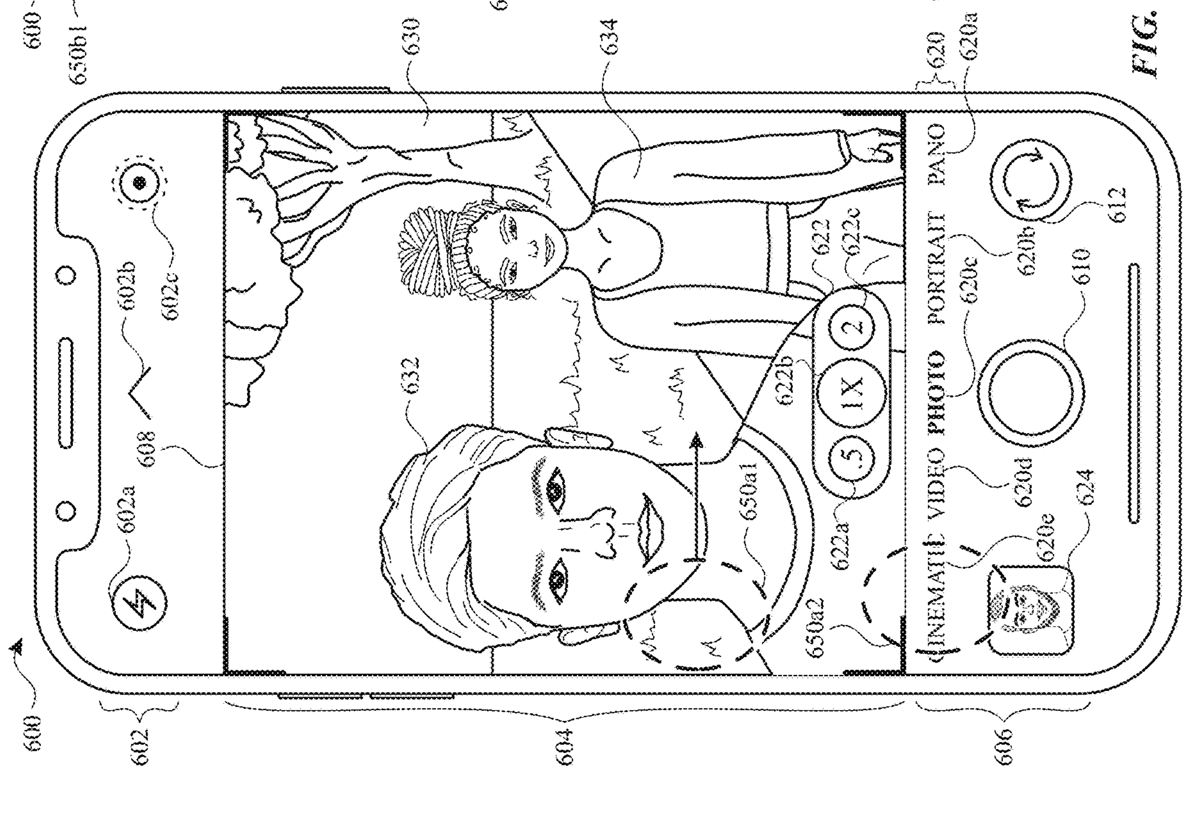

600
602
604
606
602a
602b
602c
608
630
632
634
620
620a
620b
620c
620d
620e
622
622a
622b
622c
650a1
650a2
610
612
624
5
1X
2
CINEMATIC
VIDEO
PHOTO
PORTRAIT
PANO

FIG. 6A

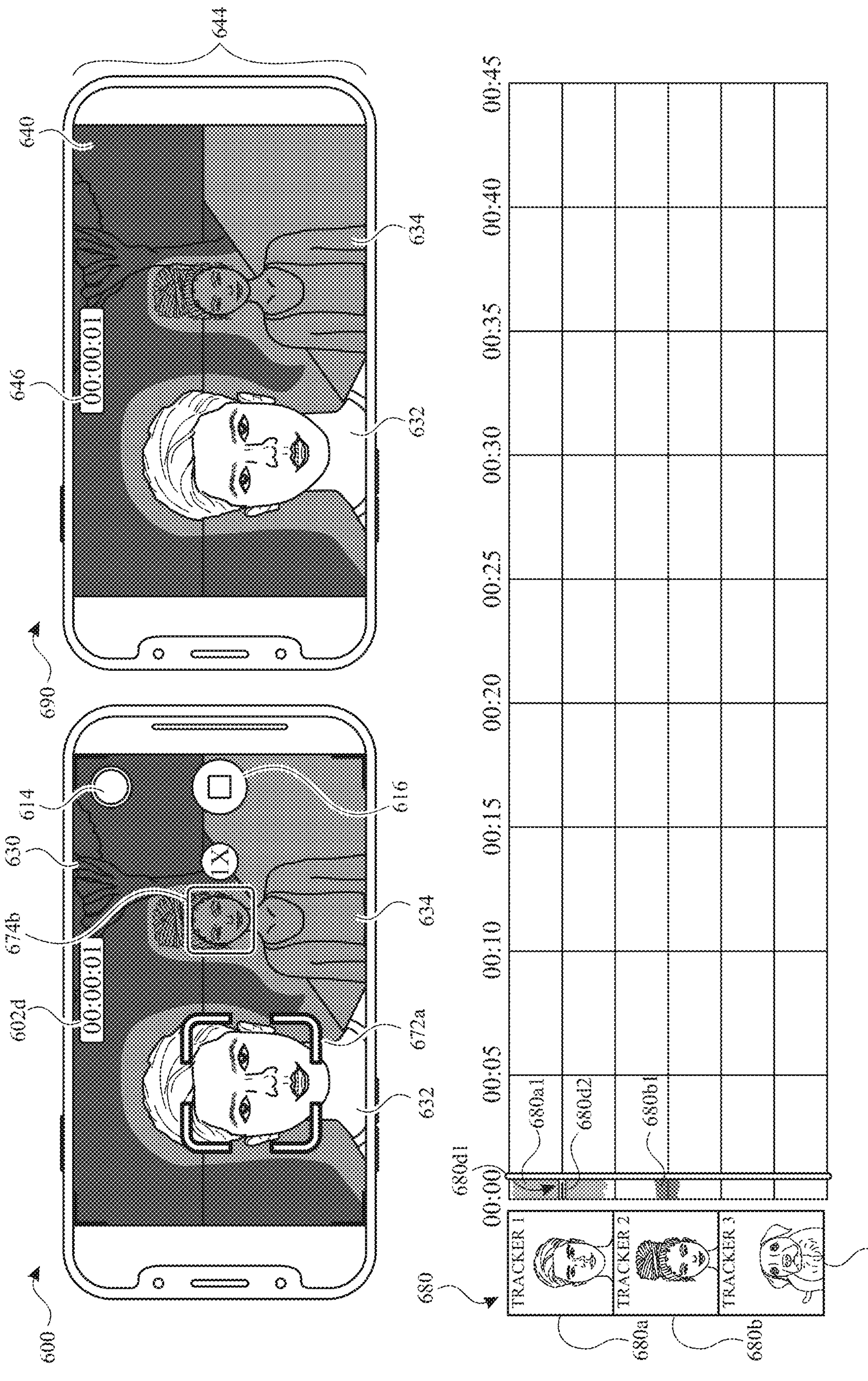

600
602d
674b
630
614
616
672a
632
634
00:00:01
1X
690
646
640
644
680
680a
680b
680c
680a1
680d1
680d2
680b1
TRACKER 1
TRACKER 2
TRACKER 3
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6C

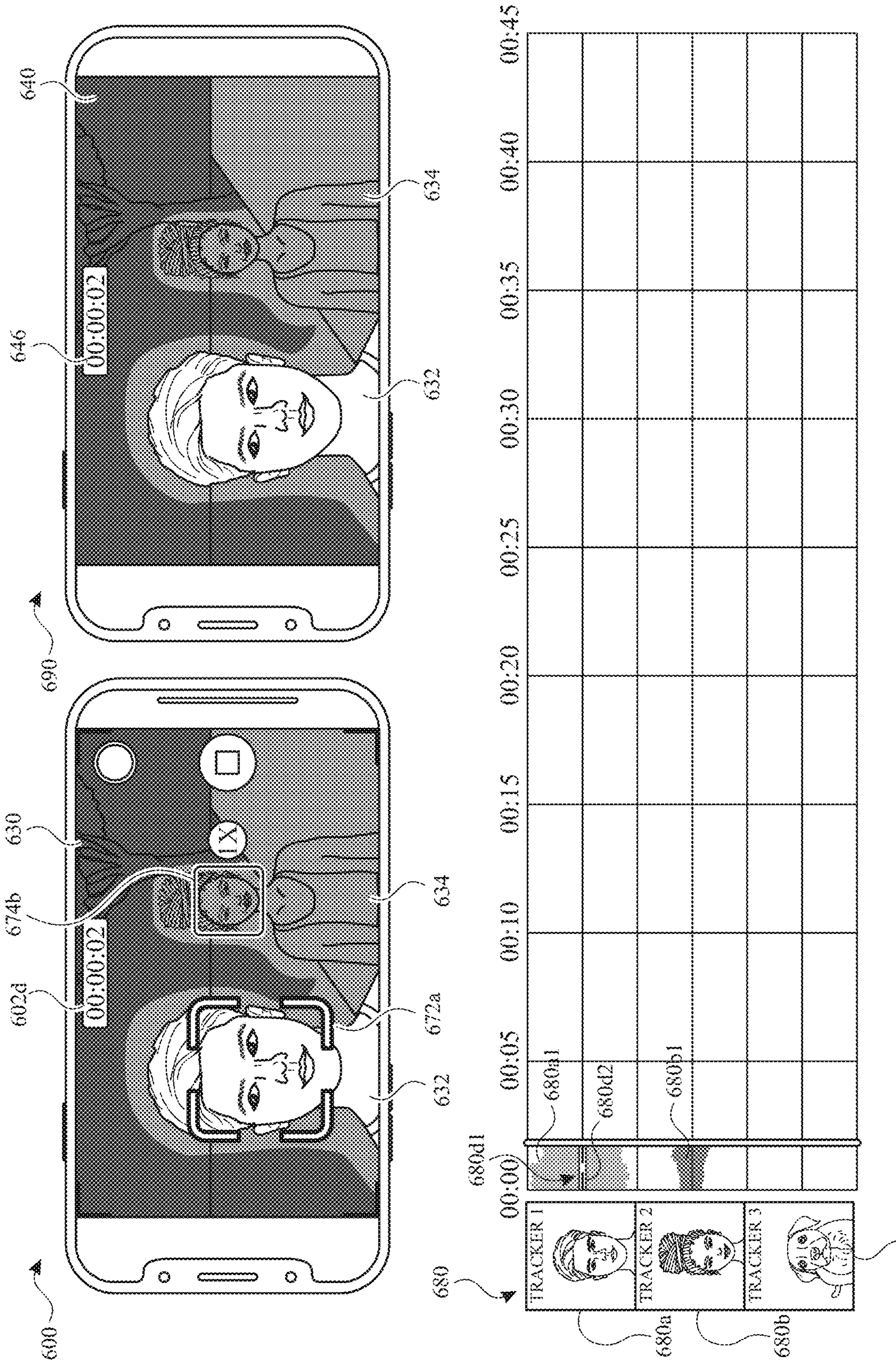

600
602d
674b
630
00:00:02
1X
672a
632
634
690
646
640
00:00:02
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680d1
680a1
680d2
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6D

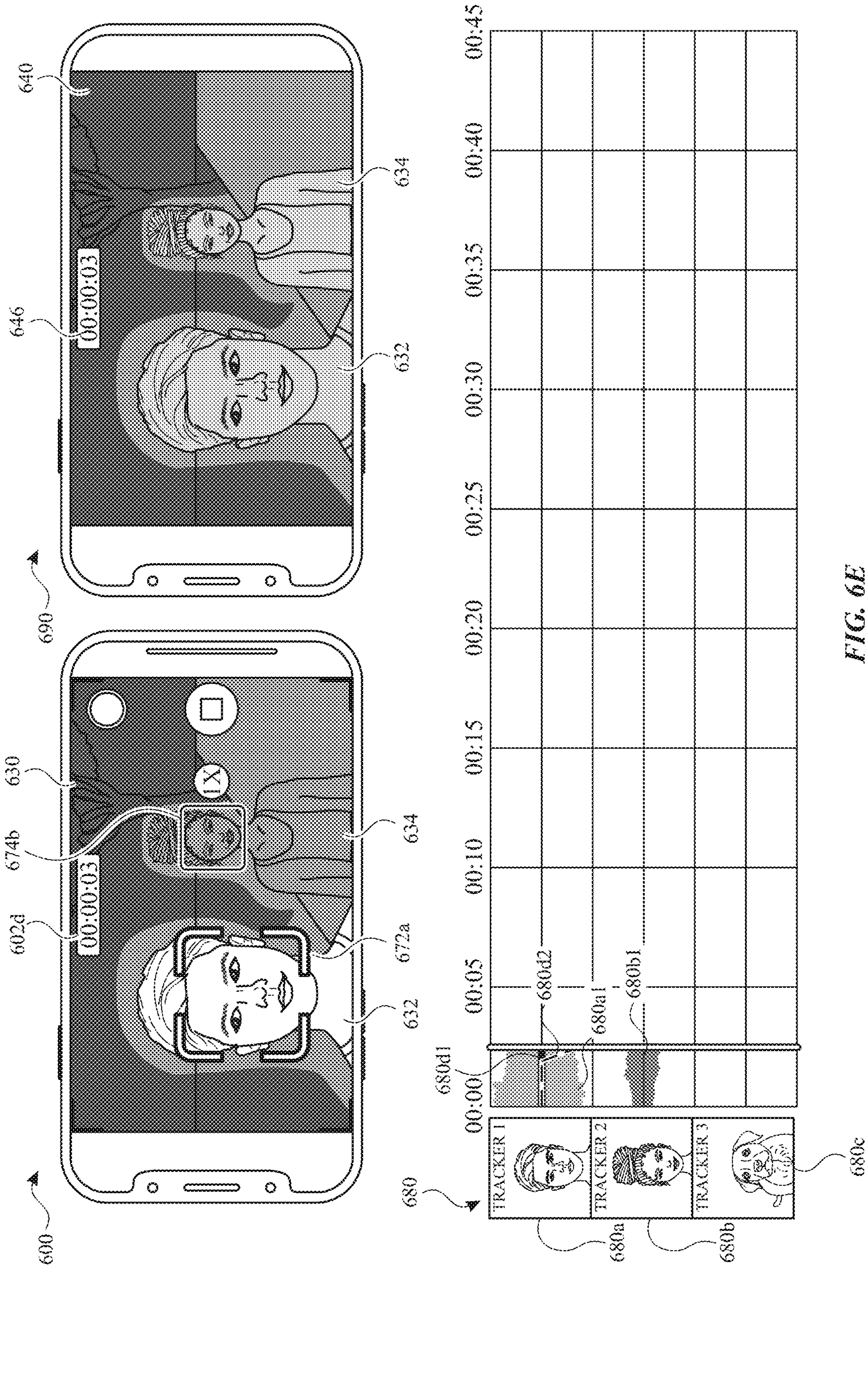

600
602d
00:00:03
674b
630
1X
672a
632
634
690
646
640
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680a1
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6E

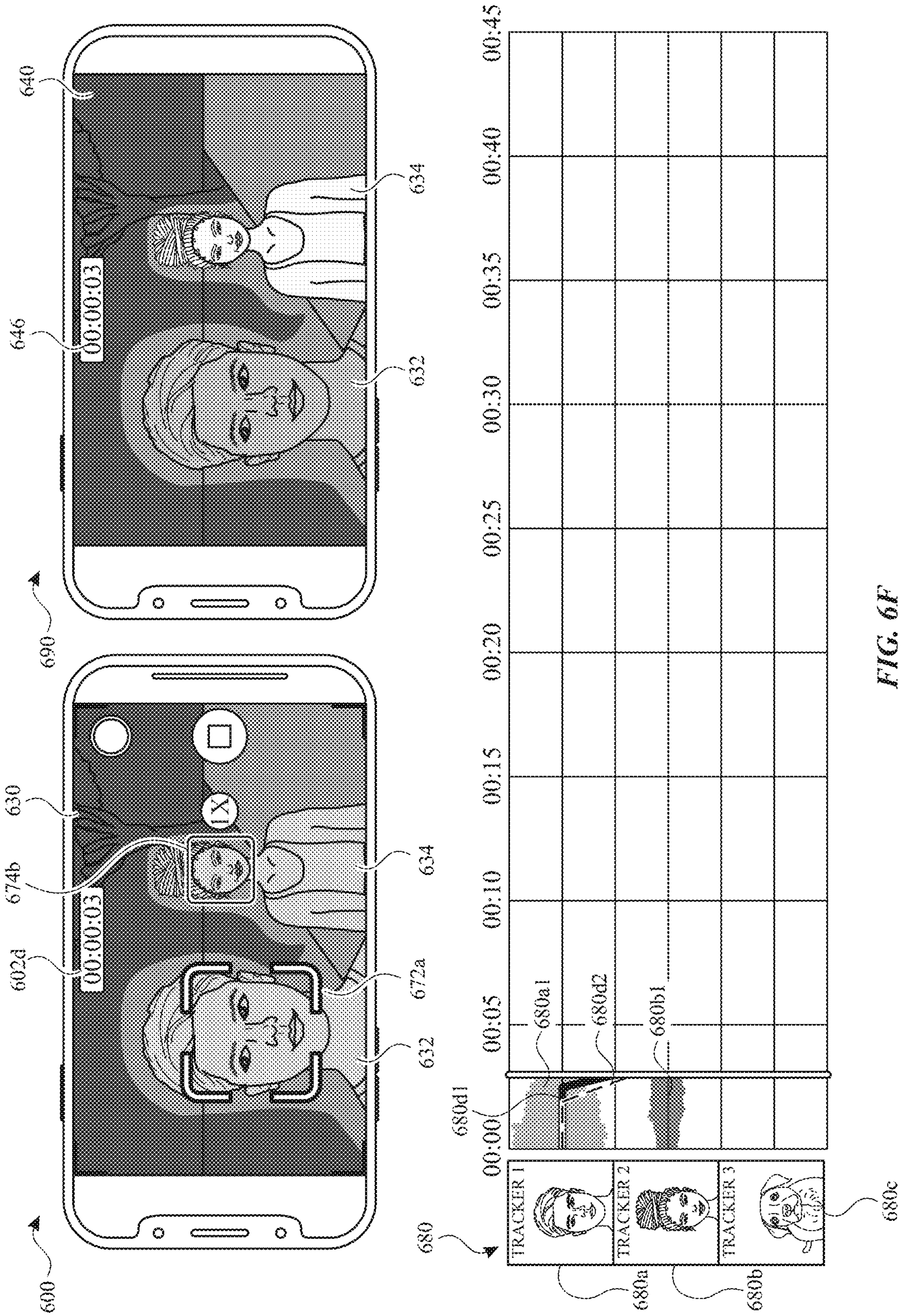

600
602d
00:00:03
674b
630
672a
632
634
1X
690
646
00:00:03
640
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680a1
680d2
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6F

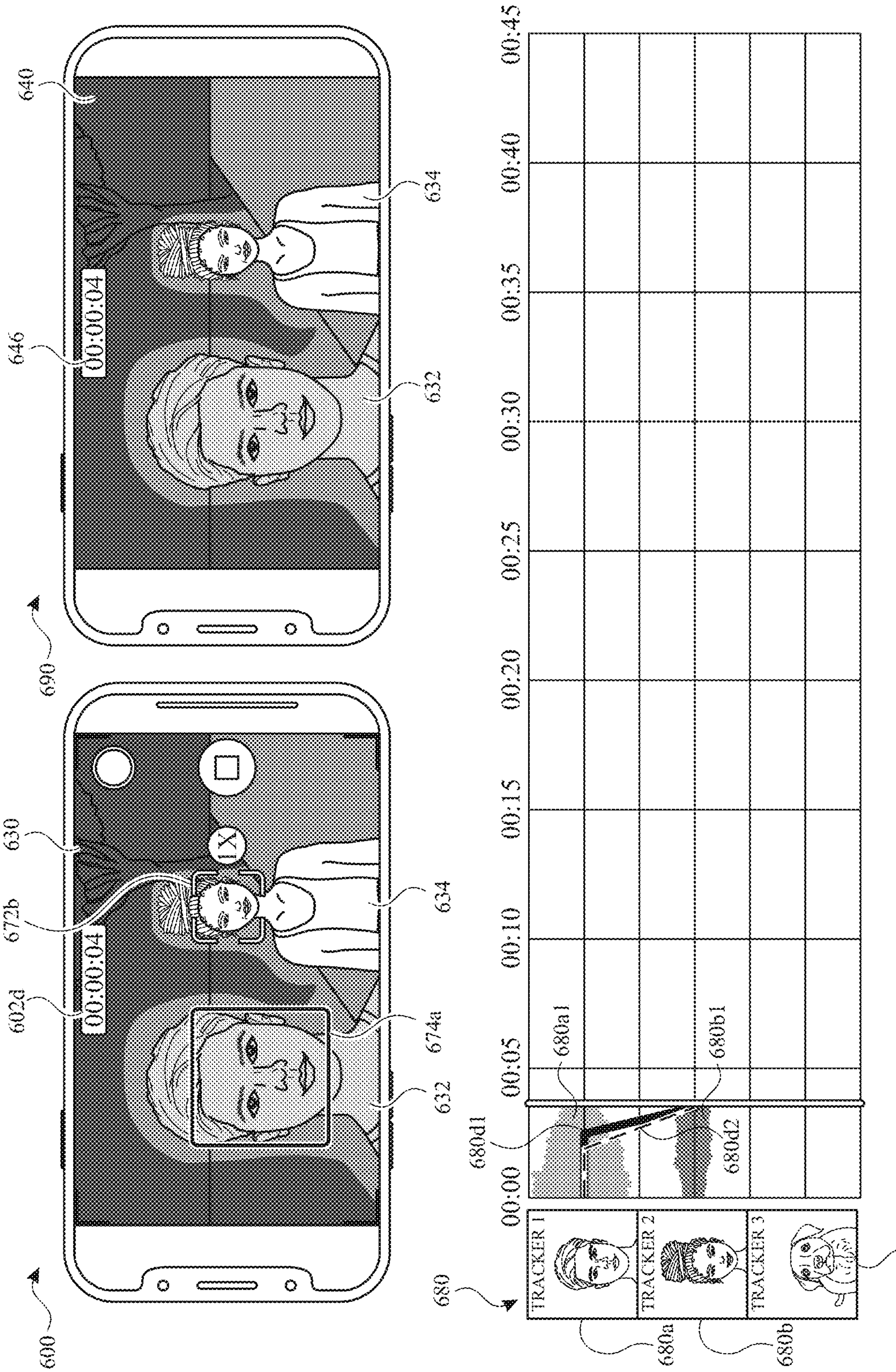

600
602d
00:00:04
672b
630
1X
674a
632
634
690
646
00:00:04
640
634
632
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680d1
680d2
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6G

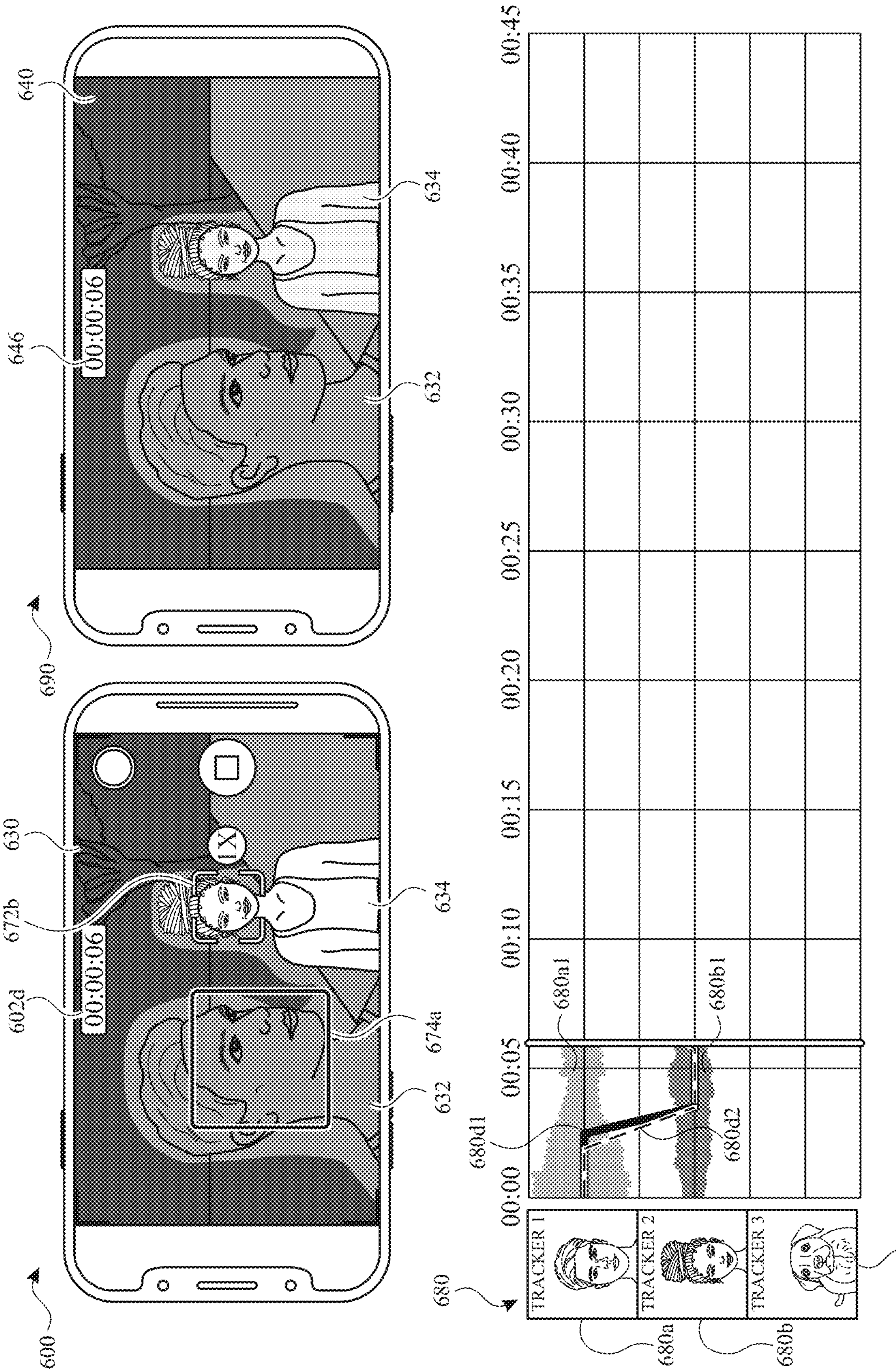

600
602d
672b
630
00:00:06
1X
634
632
674a
690
646
640
00:00:06
634
632
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680a1
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6H

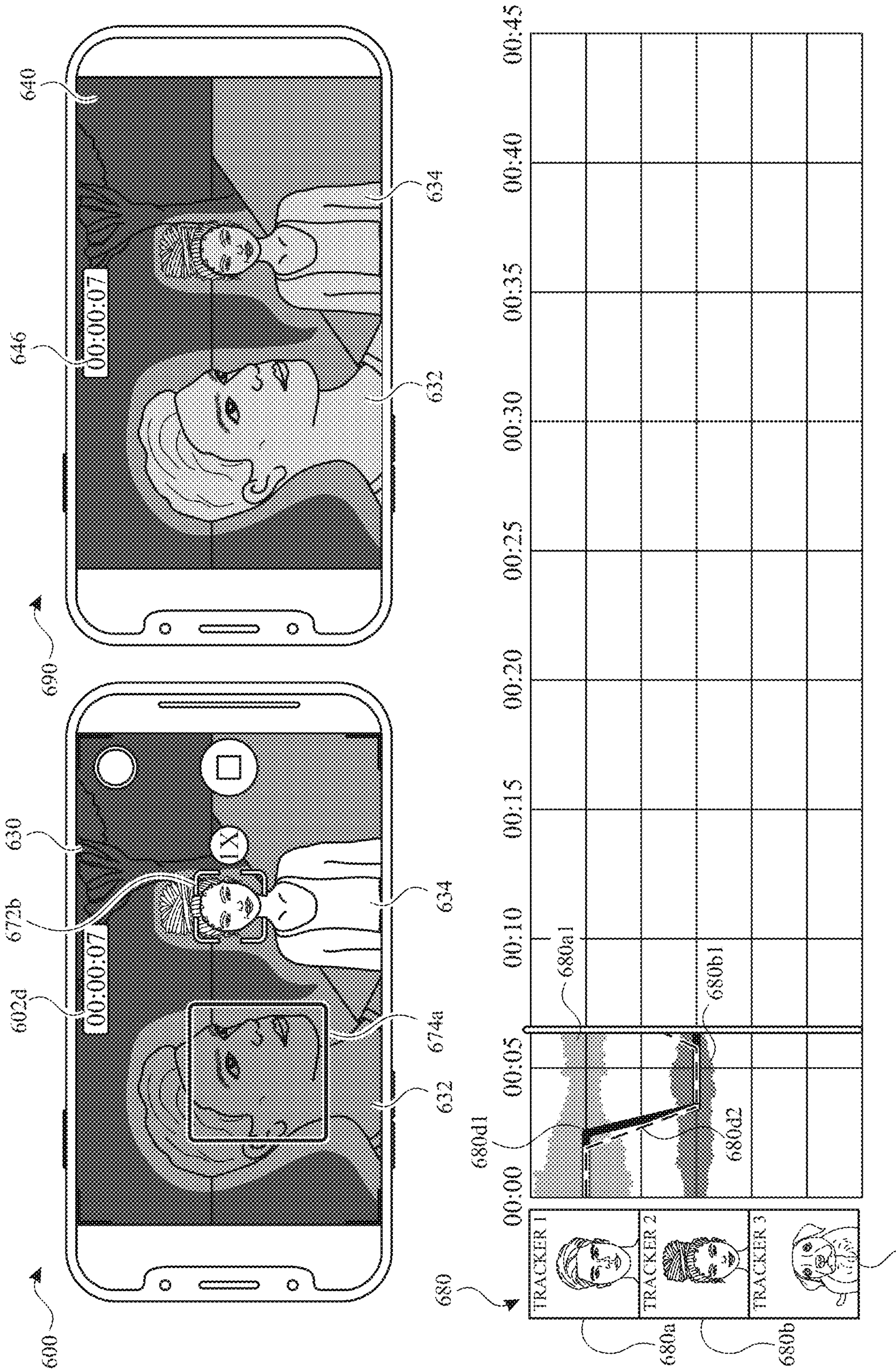

600
602d
00:00:07
672b
630
1X
634
632
674a
690
646
00:00:07
640
634
632
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680a1
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6I

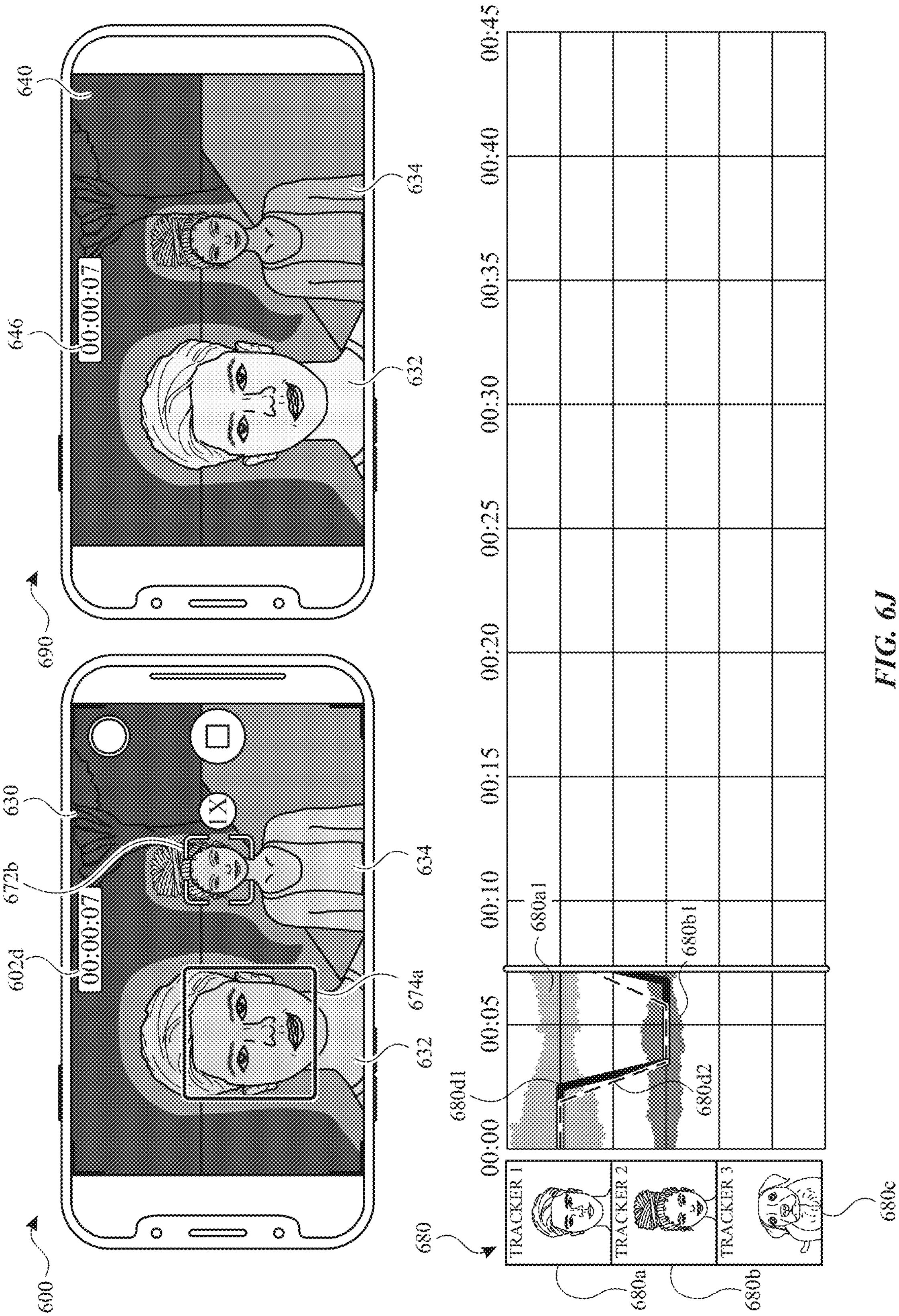

600
602d
00:00:07
672b
630
1X
674a
632
634
690
646
00:00:07
640
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680a1
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6J

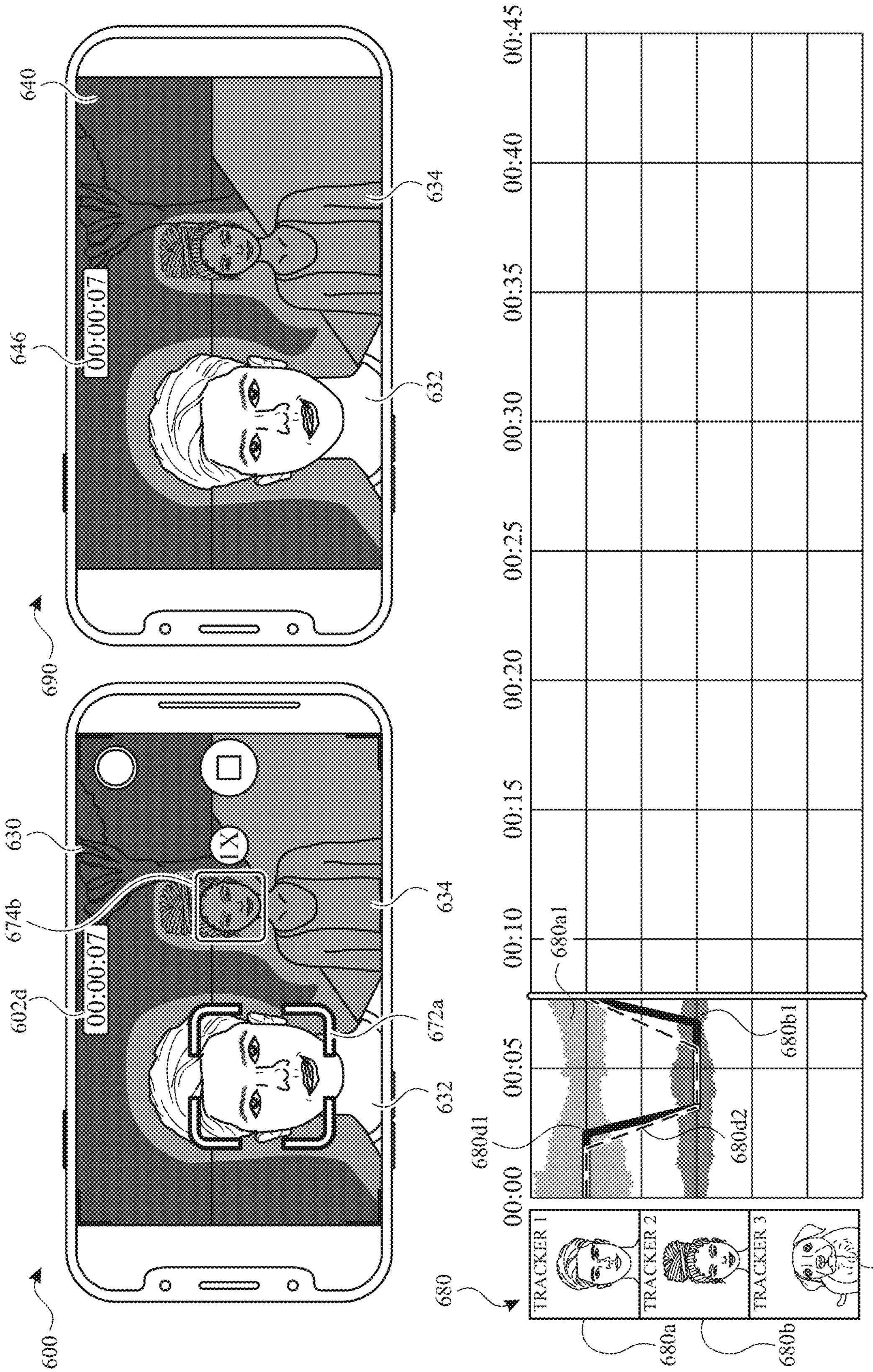

600
602d
00:00:07
674b
630
1X
672a
632
634
690
646
00:00:07
640
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680a1
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6K

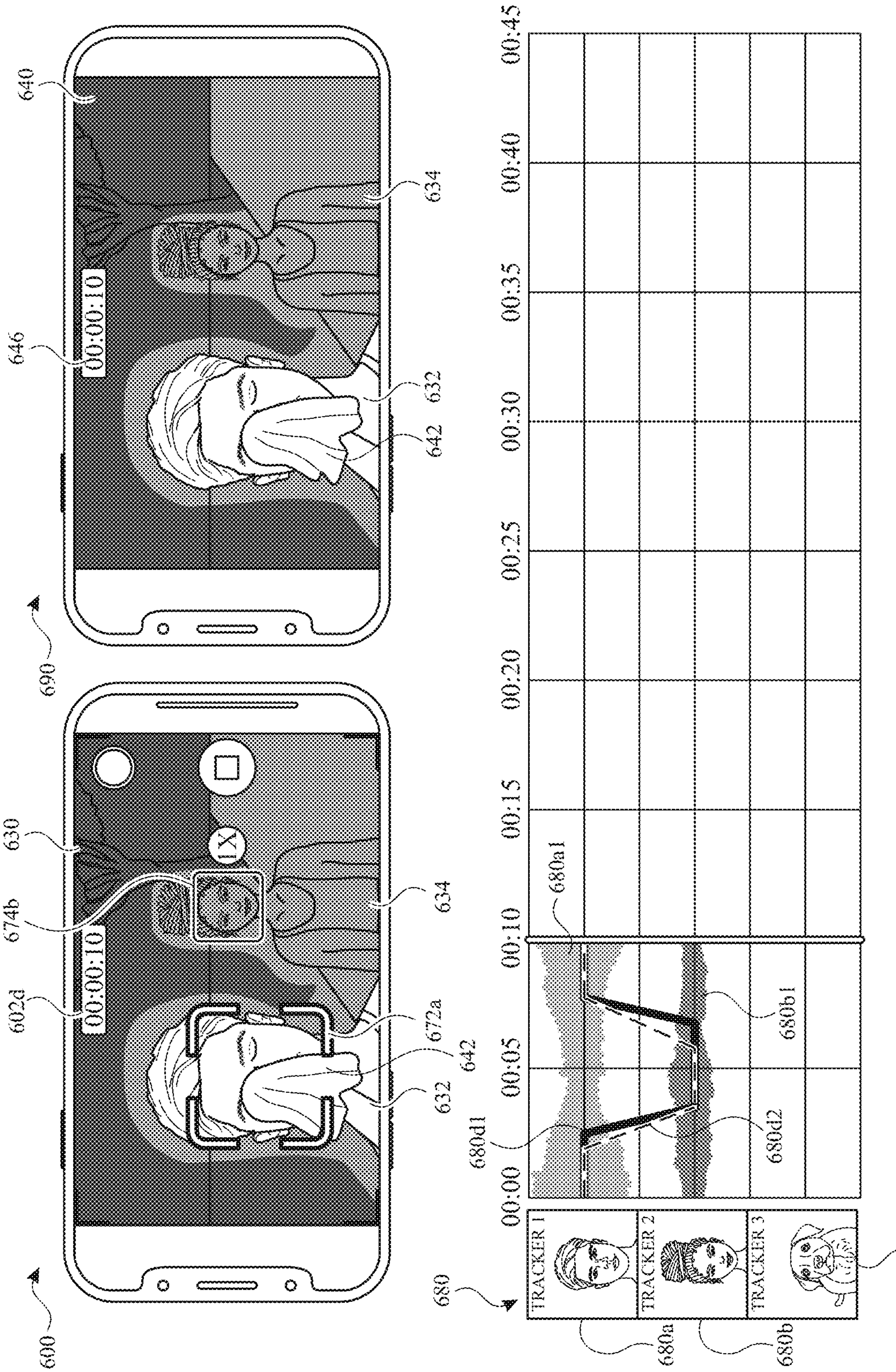

600
690
640
646
00:00:10
634
632
642
630
674b
602d
00:00:10
1X
672a
642
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680a1
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6L

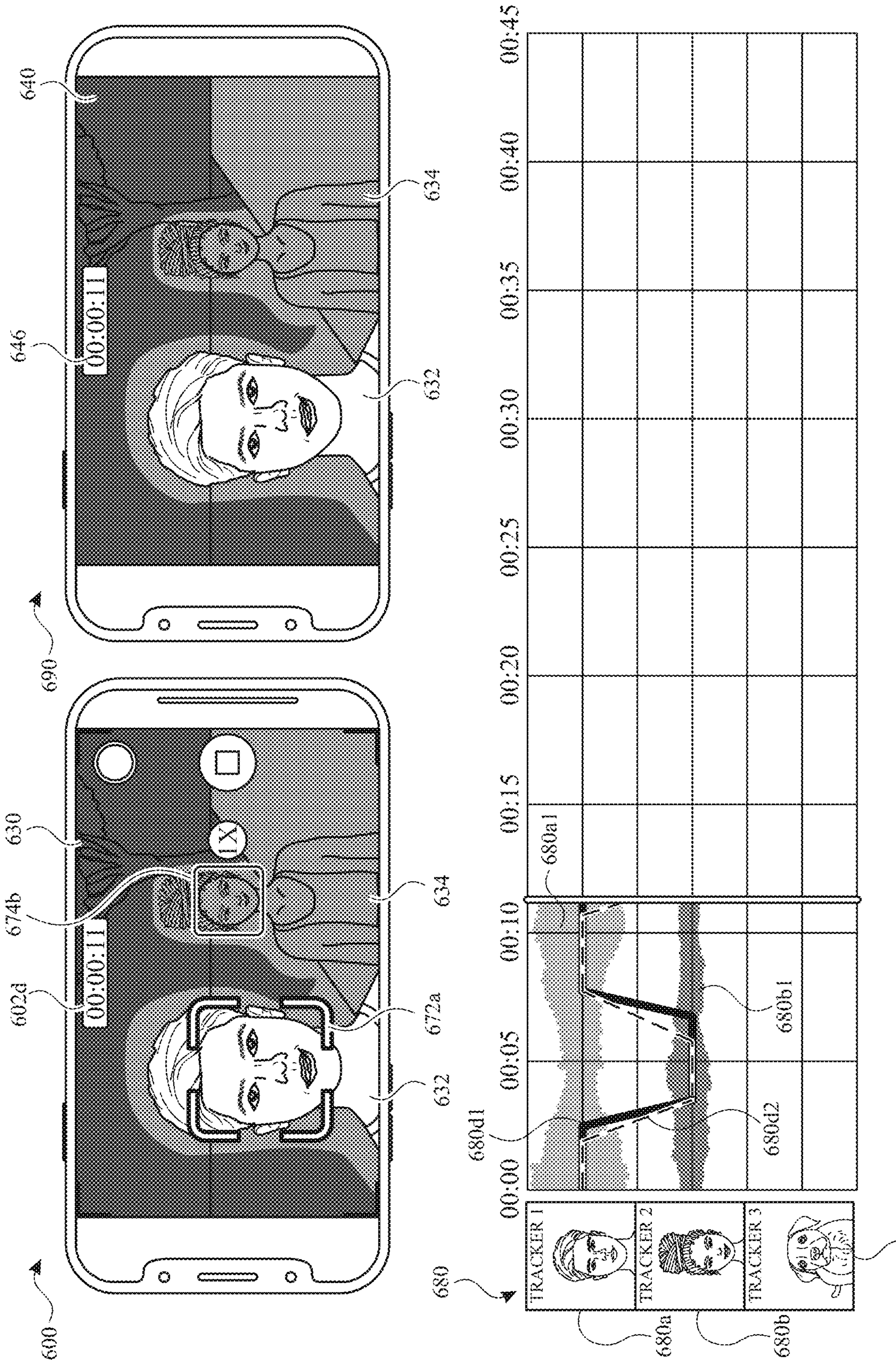

600
602d
00:00:11
674b
630
1X
672a
632
634
690
646
640
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680b1
680a1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6M

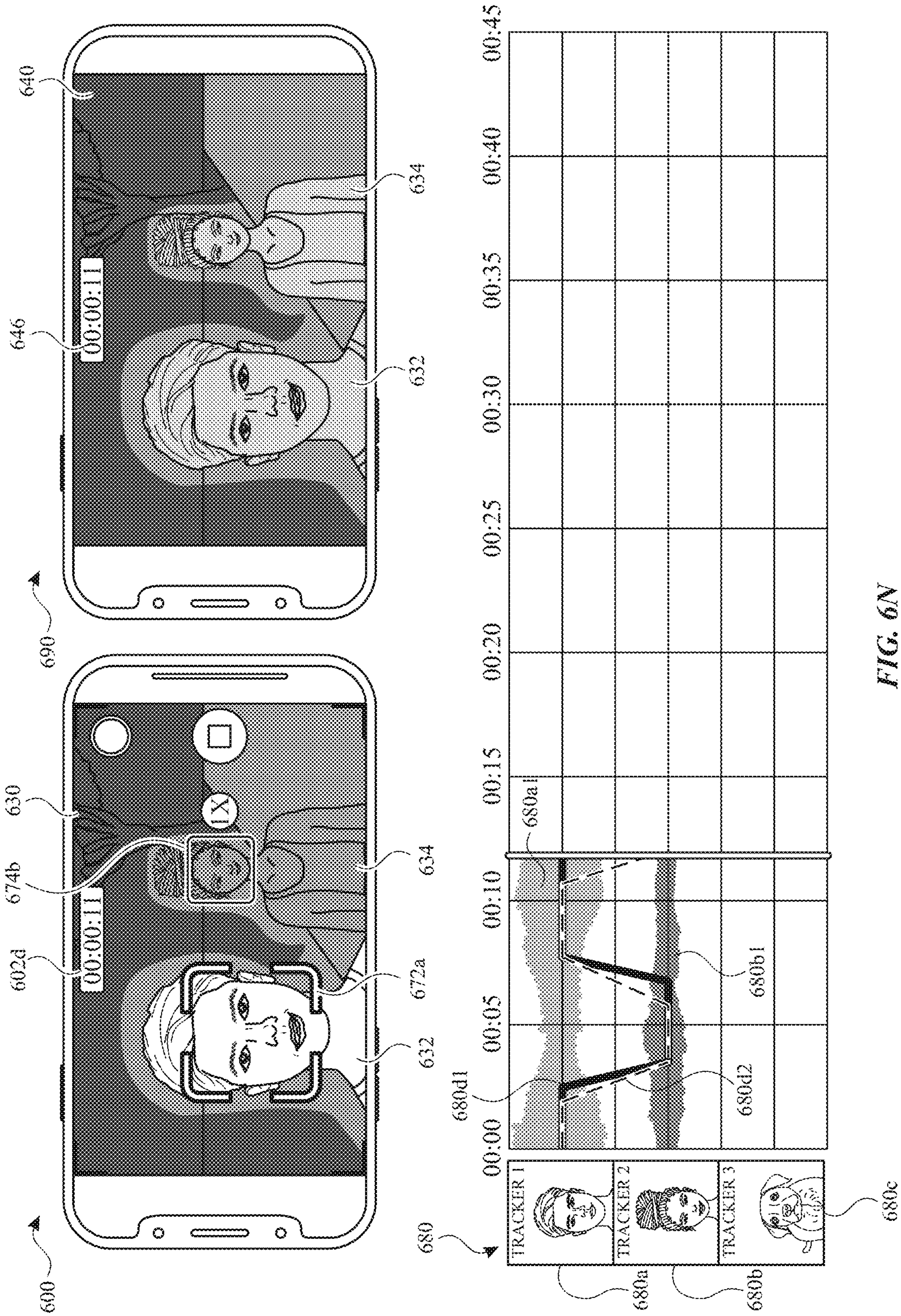

600
602d
00:00:11
674b
630
1X
672a
632
634
690
646
00:00:11
640
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680b1
680a1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6N

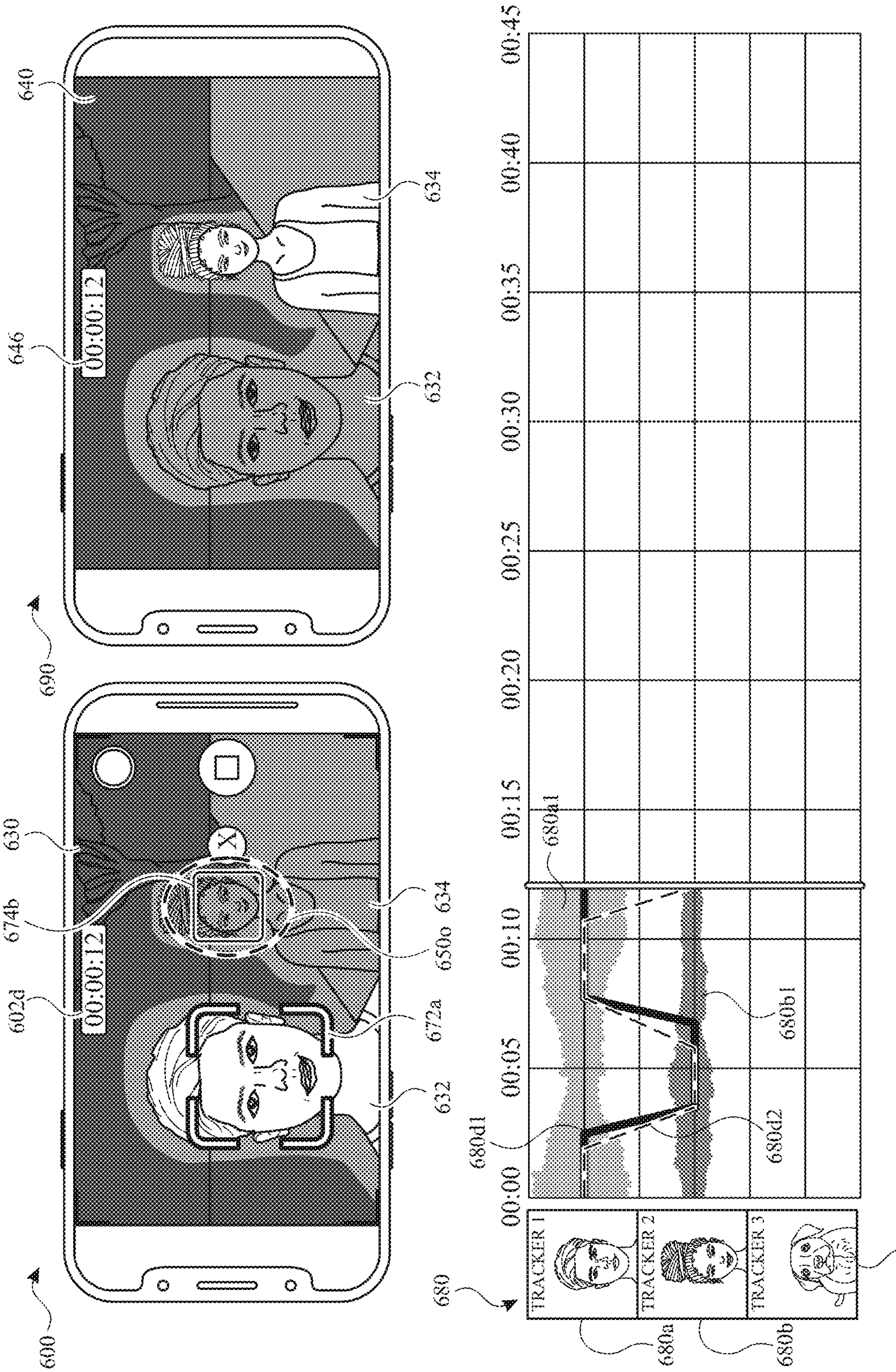

600
690
630
674b
602d
00:00:12
672a
632
650o
634
646
00:00:12
640
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680d1
680d2
680b1
680a1

FIG. 6O

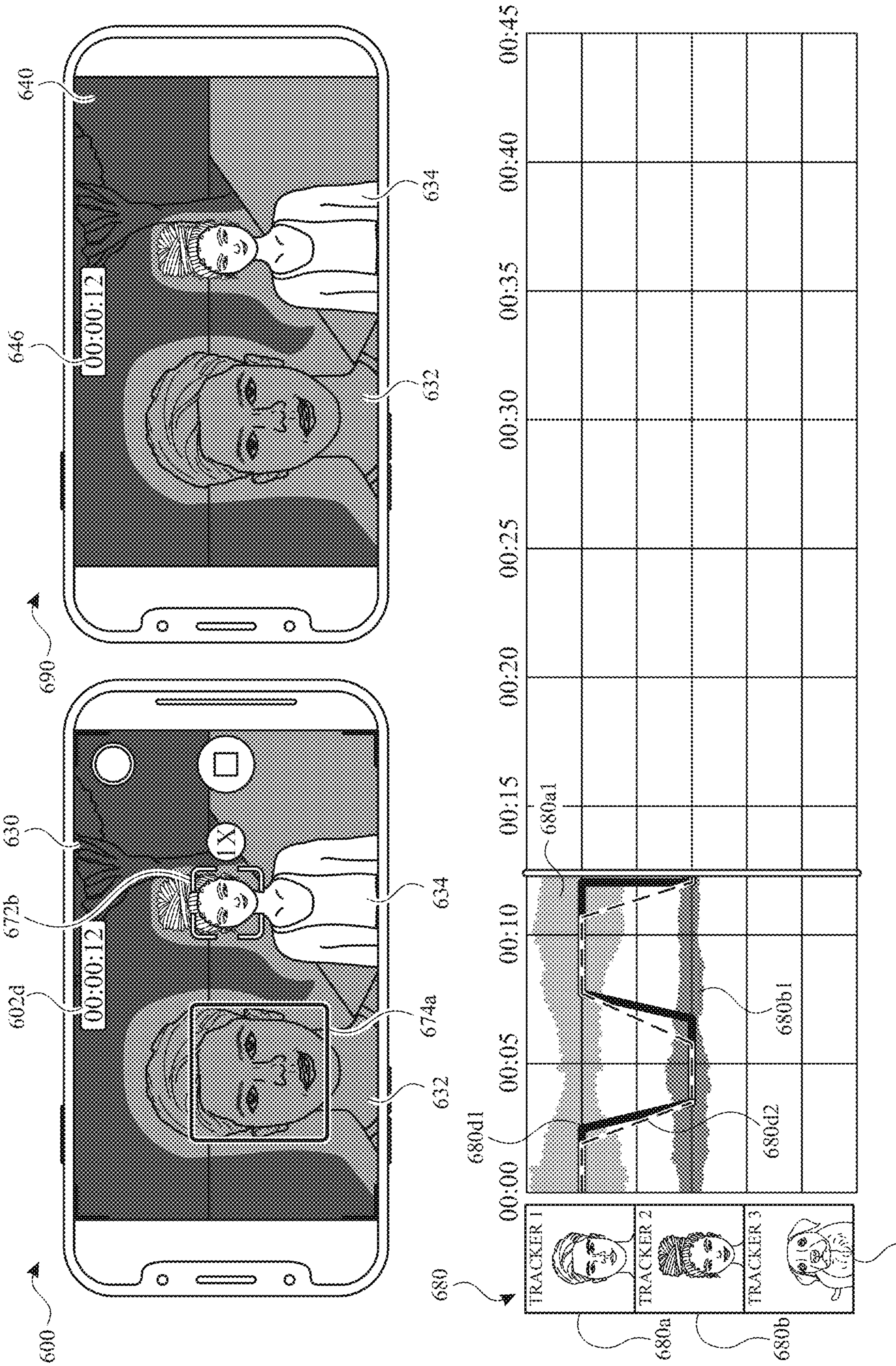

600
602d
00:00:12
672b
630
1X
674a
632
634
690
646
640
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680b1
680a1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6P

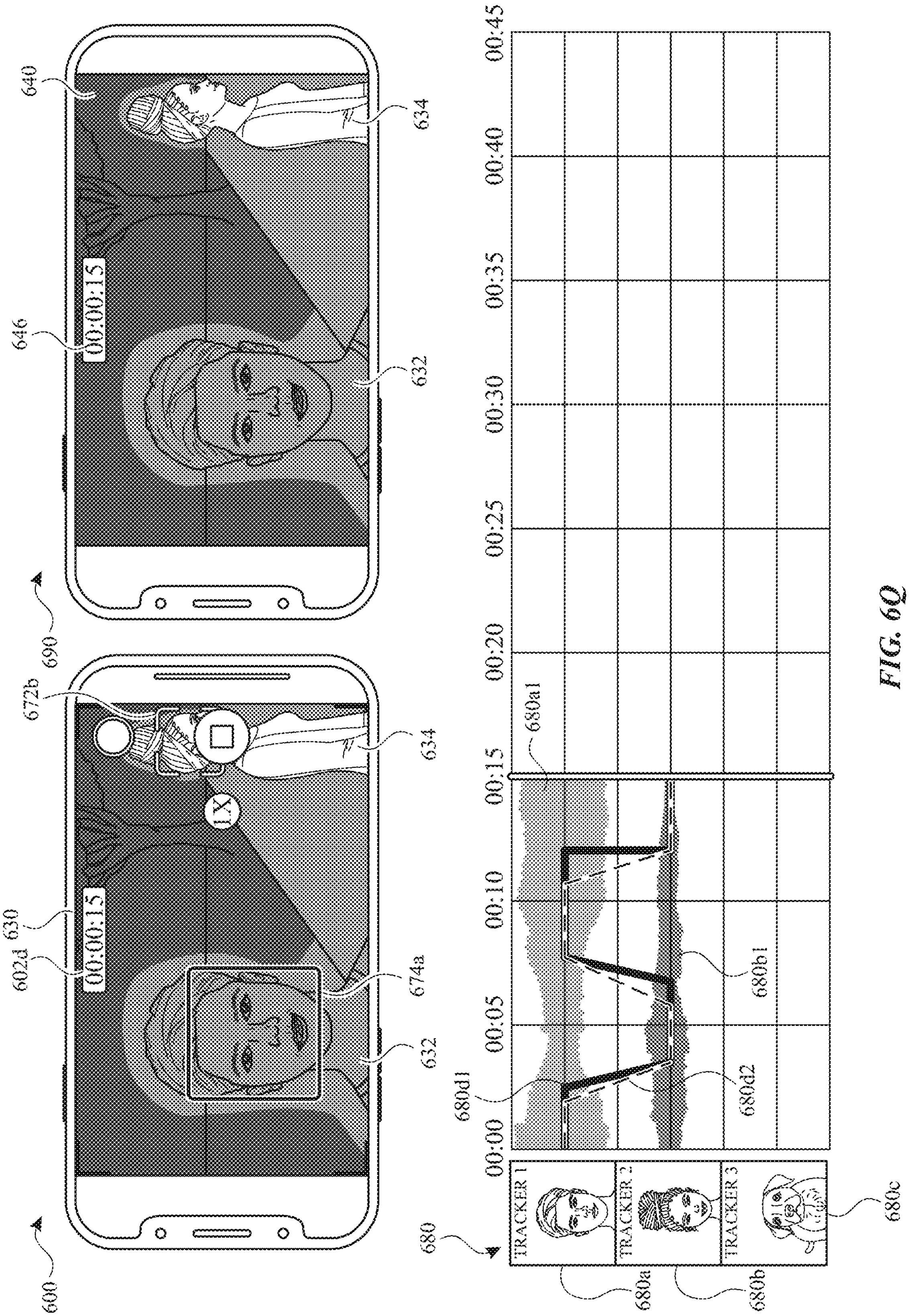

600
602d
630
00:00:15
674a
632
1X
672b
634
690
646
00:00:15
632
634
640
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680d1
680d2
680b1
680a1

FIG. 6Q

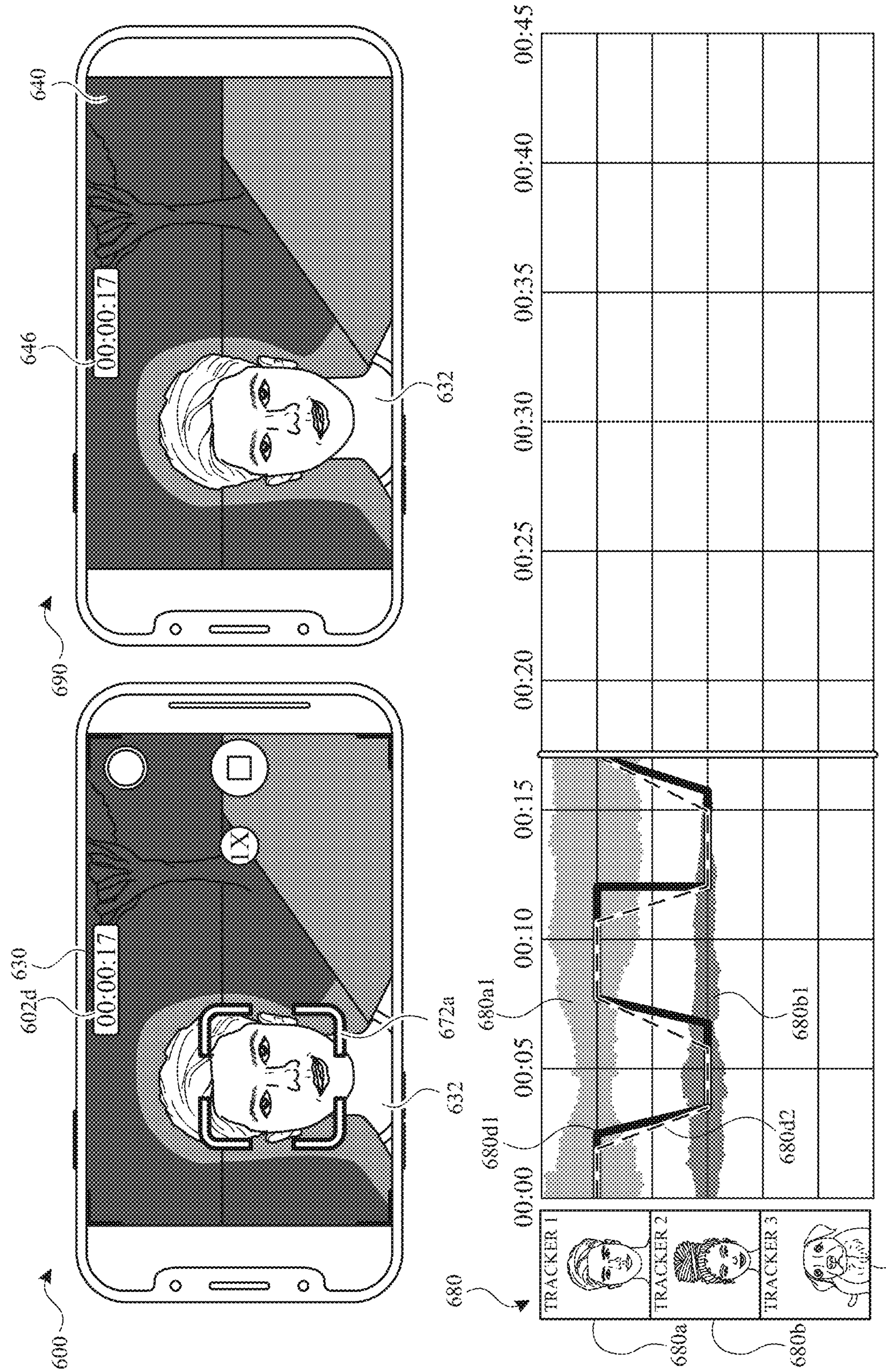

600
602d
630
00:00:17
1X
672a
632
690
646
00:00:17
640
632
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680a1
680d2
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6R

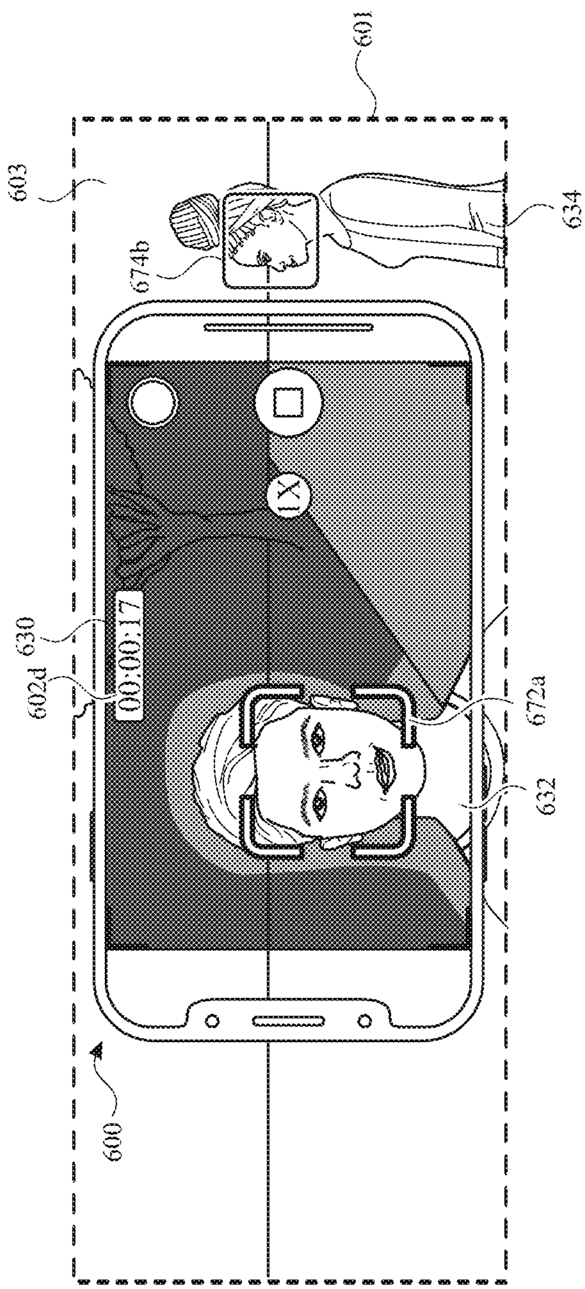


FIG. 6R1

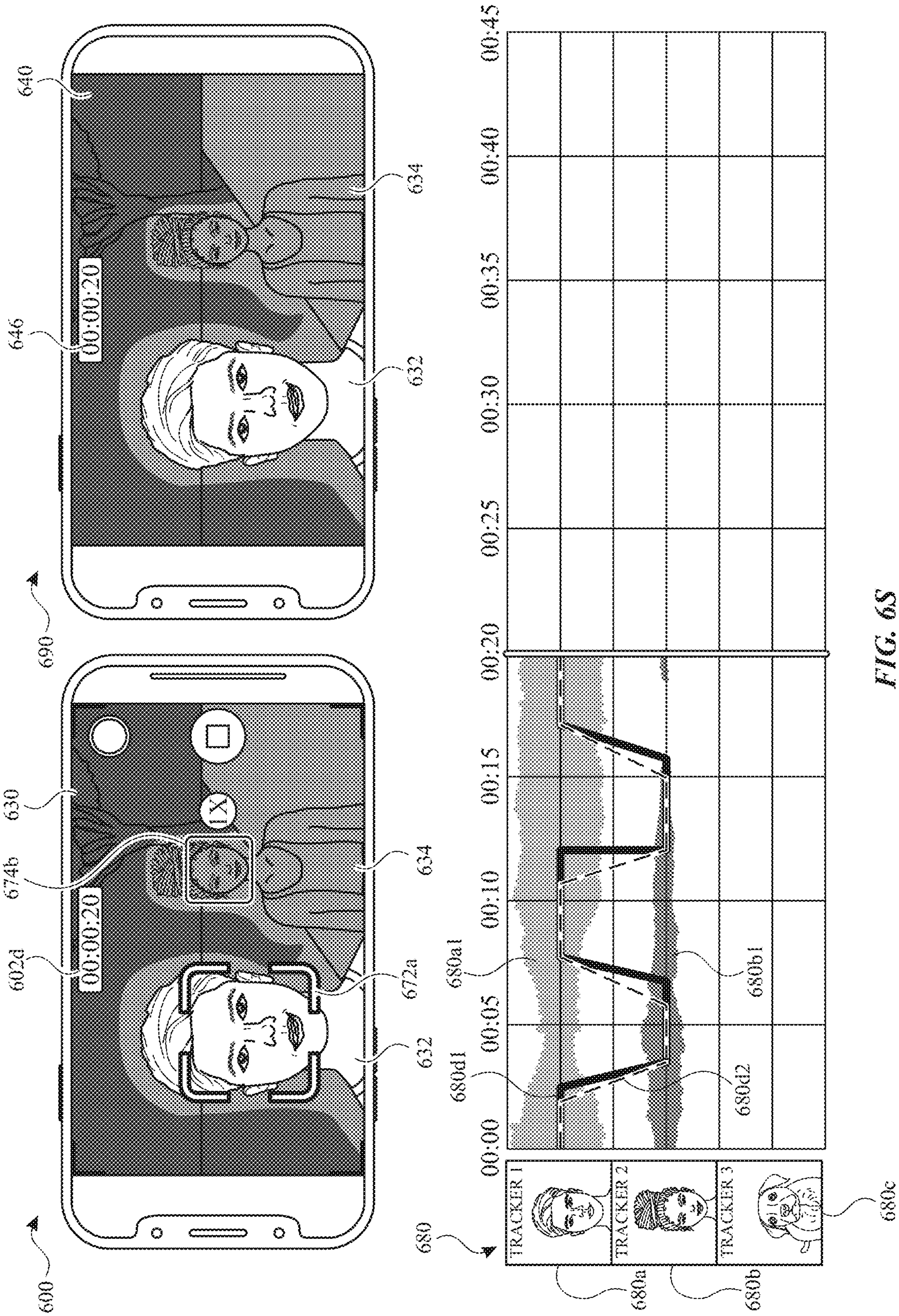

600
602d
00:00:20
674b
630
1X
672a
632
634
690
646
00:00:20
640
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680d1
680a1
680d2
680b1

FIG. 6S

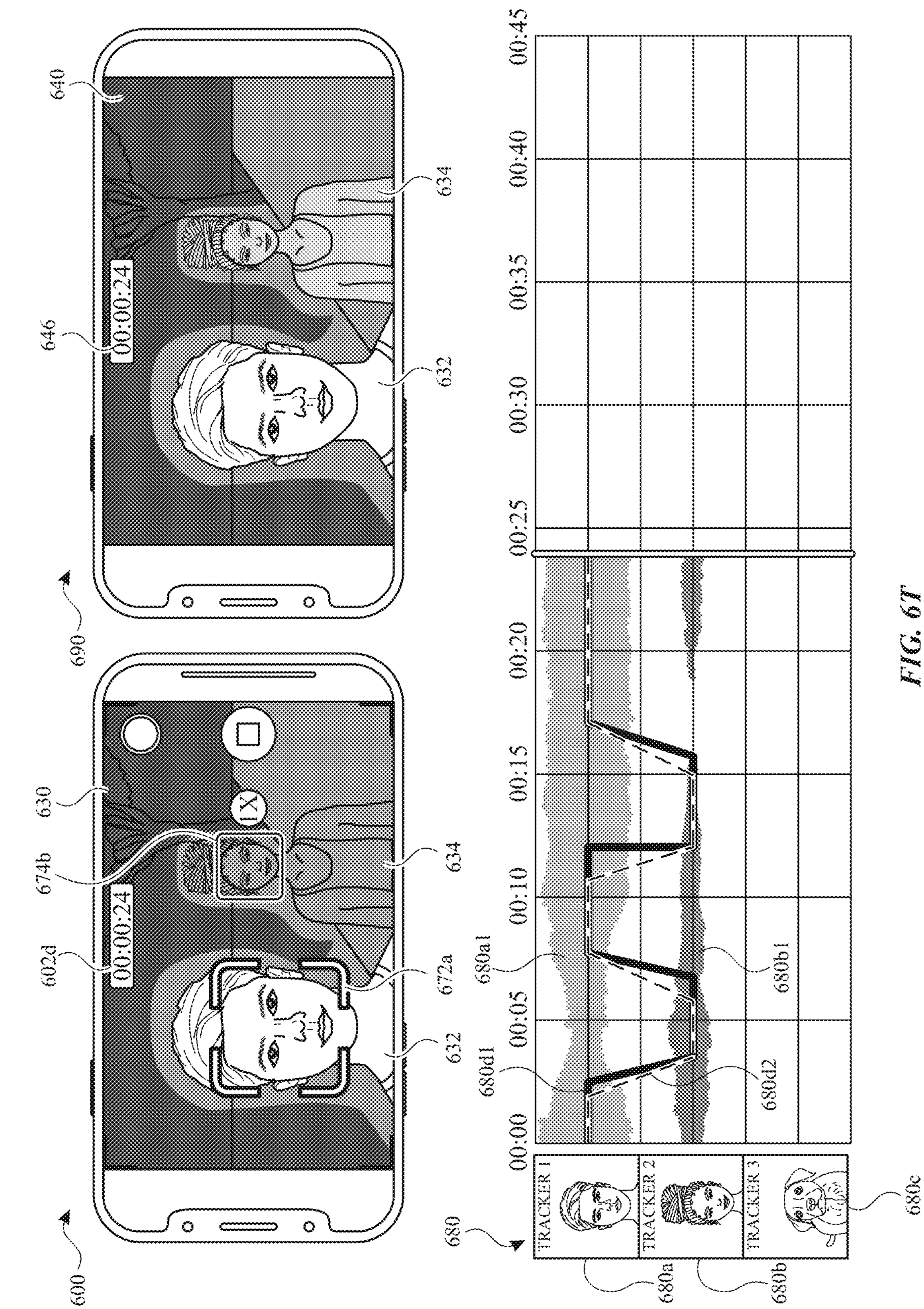

600
690
602d
674b
630
00:00:24
1X
672a
632
634
646
640
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680d1
680d2
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6T

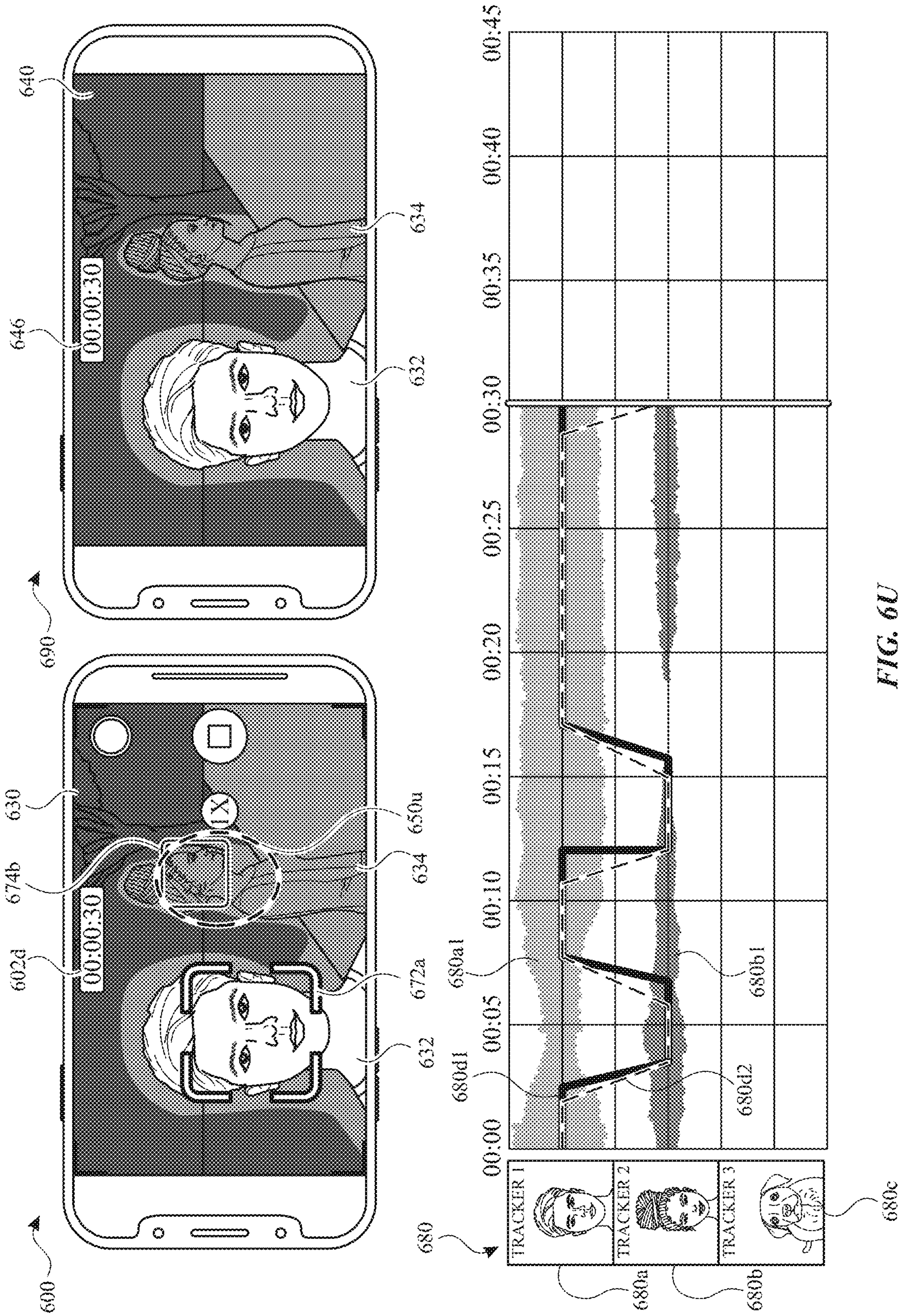

600
602d
674b
630
00:00:30
650u
1X
672a
632
634
690
646
640
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680d2
680a1
680b1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6U

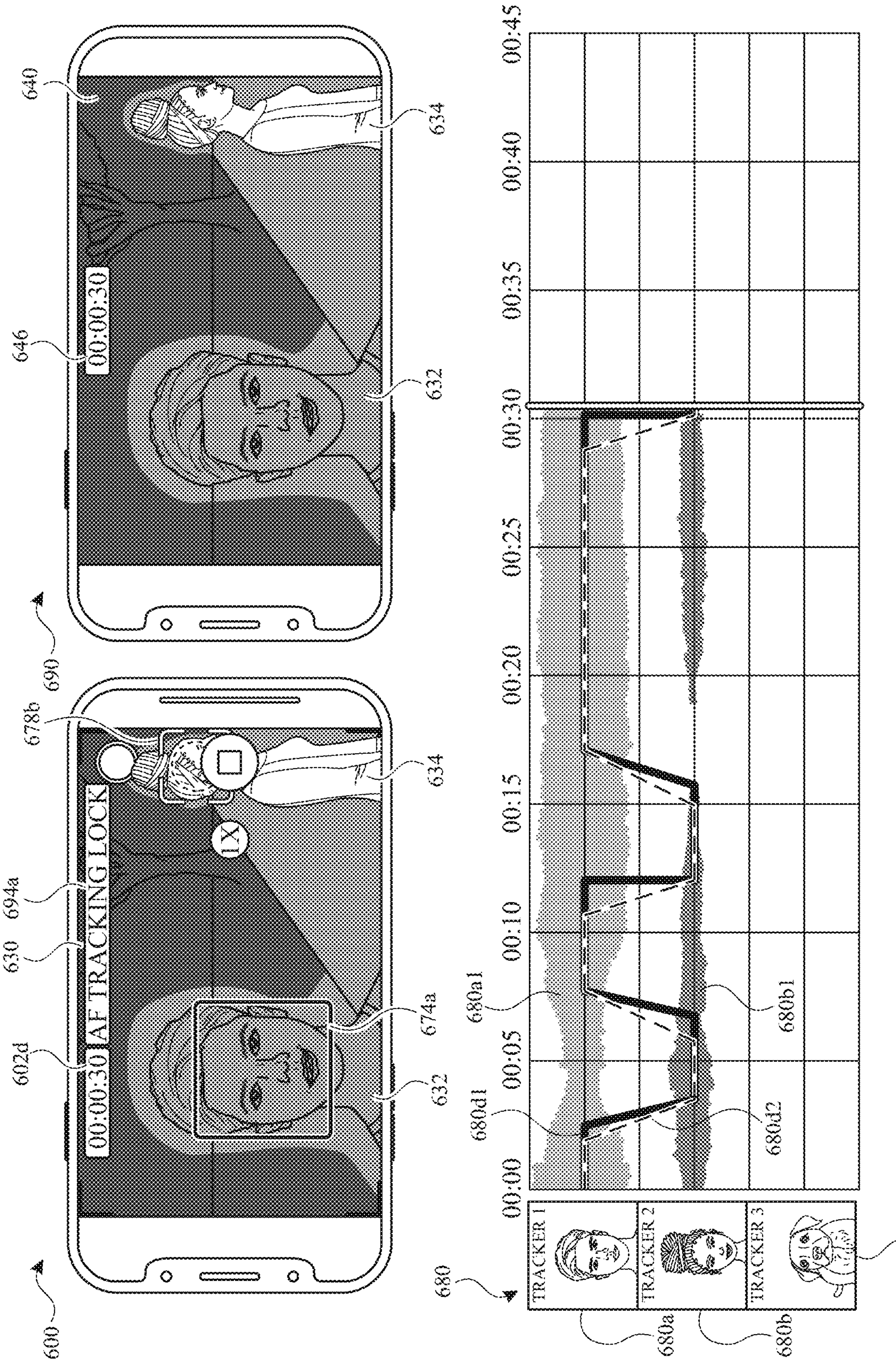

600
602d
630
694a
00:00:30
AF TRACKING LOCK
1X
674a
678b
632
634
690
646
00:00:30
640
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680d1
680d2
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6V

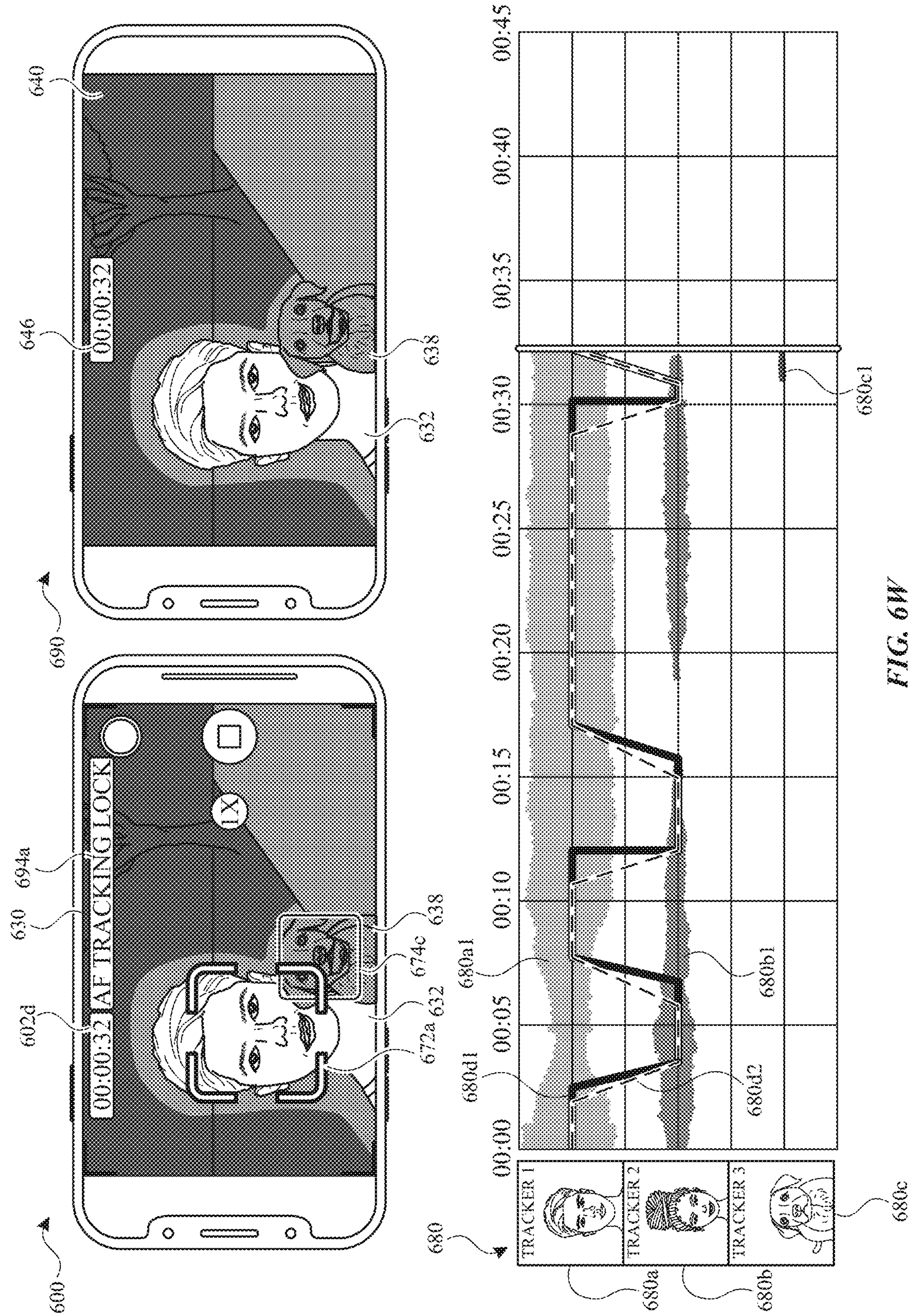

600
602d
630
694a
00:00:32
AF TRACKING LOCK
1X
672a
632
674c
638
690
646
640
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6W

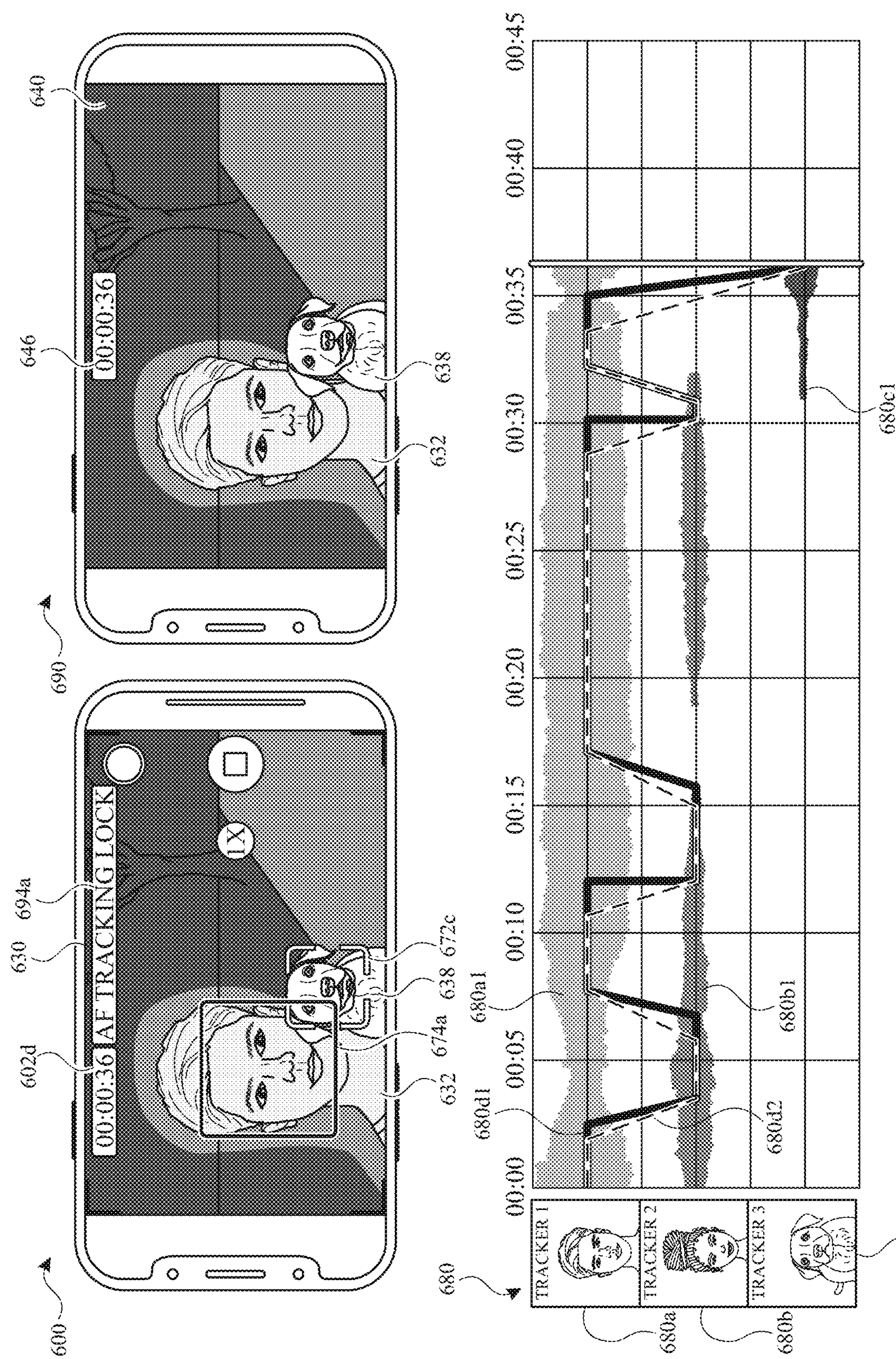

600
690
602d
630
694a
00:00:36
AF TRACKING LOCK
1X
674a
638
672c
632
640
646
00:00:36
638
632
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680d1
680d2
680a1
680b1
680c1

FIG. 6X

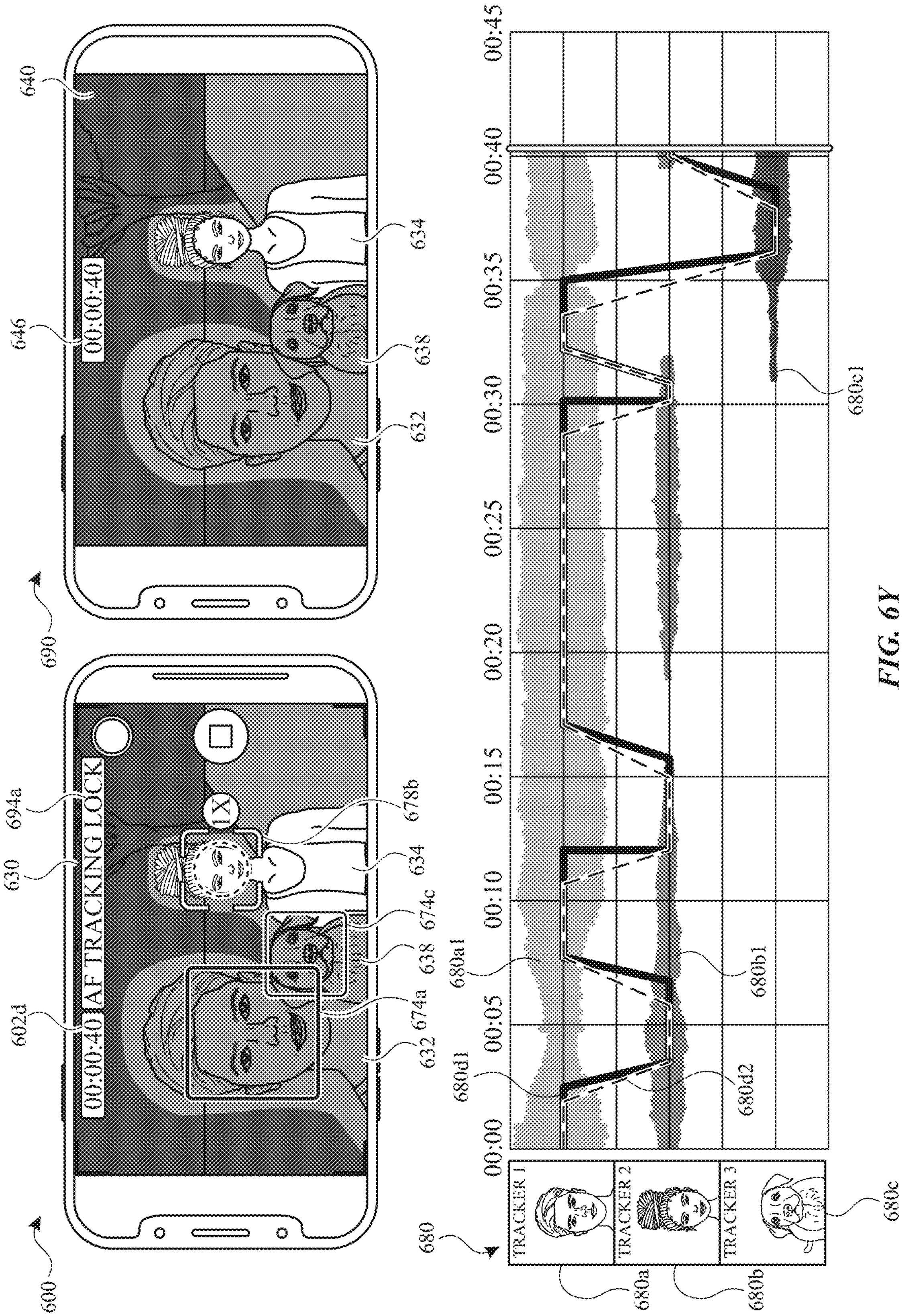

600
602d
00:00:40
AF TRACKING LOCK
630
694a
1X
678b
674a
674c
632
638
634
690
646
00:00:40
640
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6Y

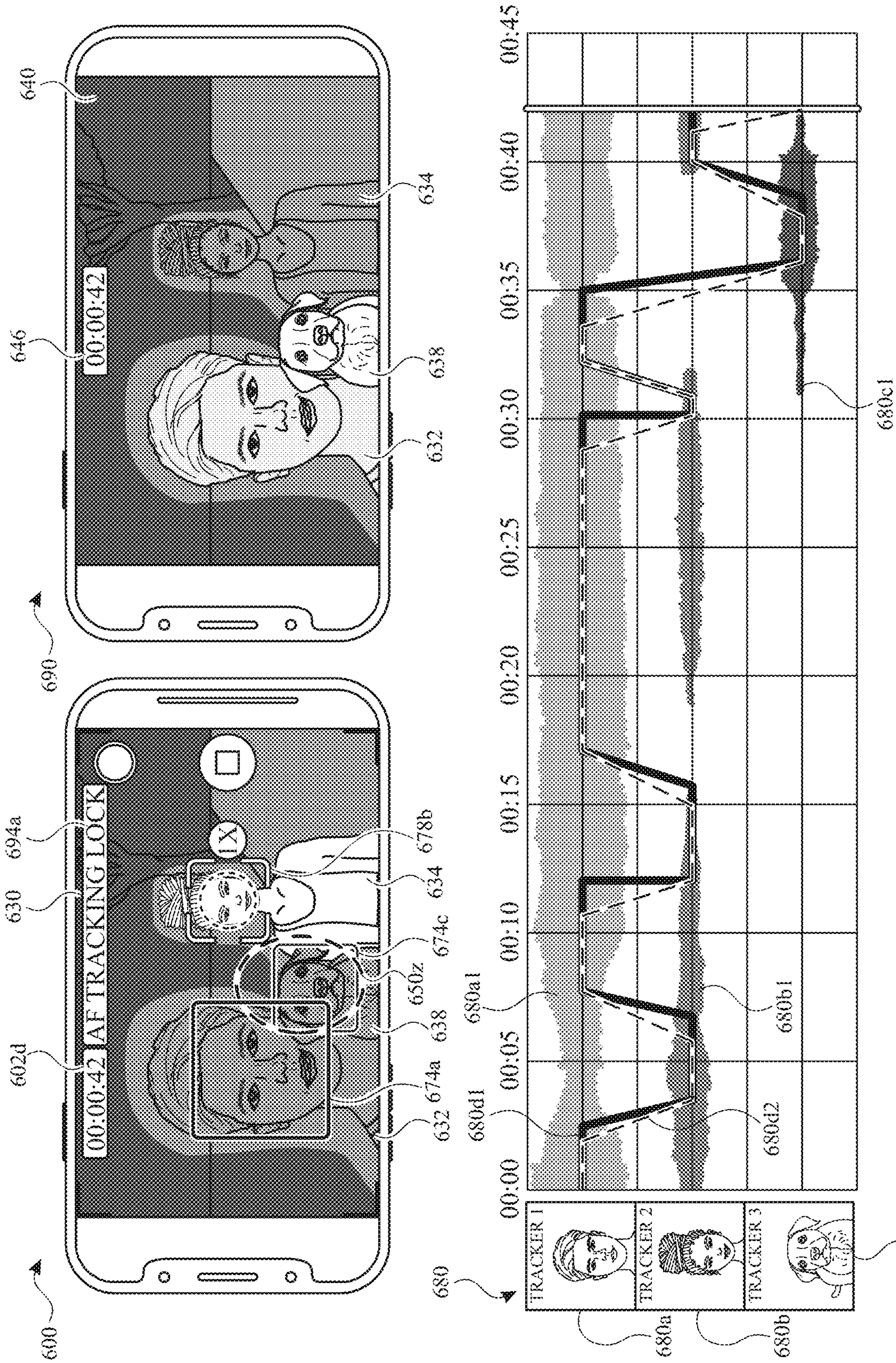

600
602d
00:00:42
630
AF TRACKING LOCK
694a
1X
674a
632
638
650z
674c
634
678b
690
646
00:00:42
640
632
638
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d1
680a1
680d2
680b1
680c1
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6Z

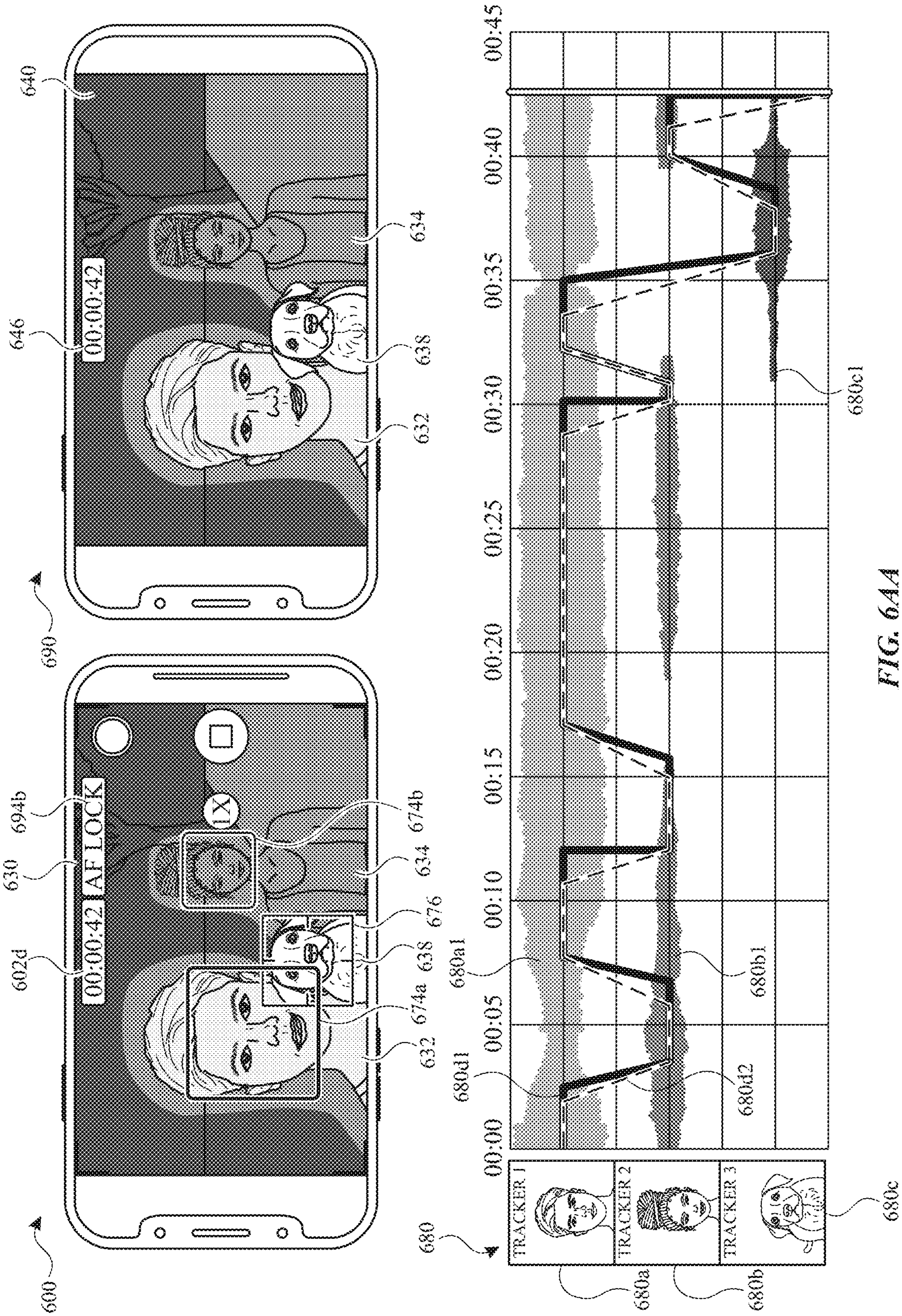

600
602d
00:00:42
630
AF LOCK
694b
1X
674b
634
676
638
674a
632
690
646
00:00:42
640
634
638
632
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680d1
680d2
680a1
680b1
680c1

FIG. 6AA

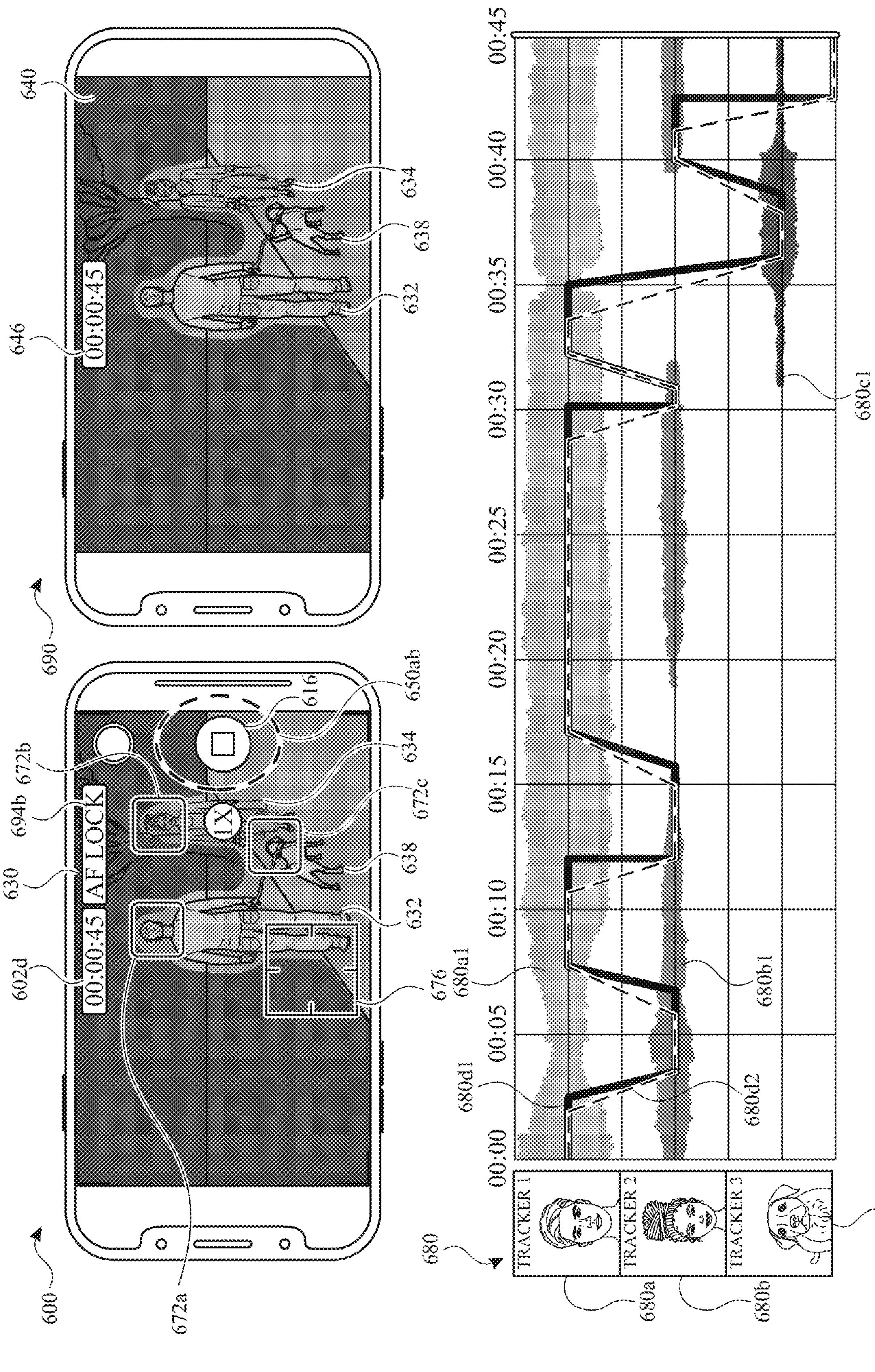

600
690
602d
630
694b
672b
00:00:45
AF LOCK
1X
616
650ab
634
672c
638
632
676
672a
640
646
00:00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6AB

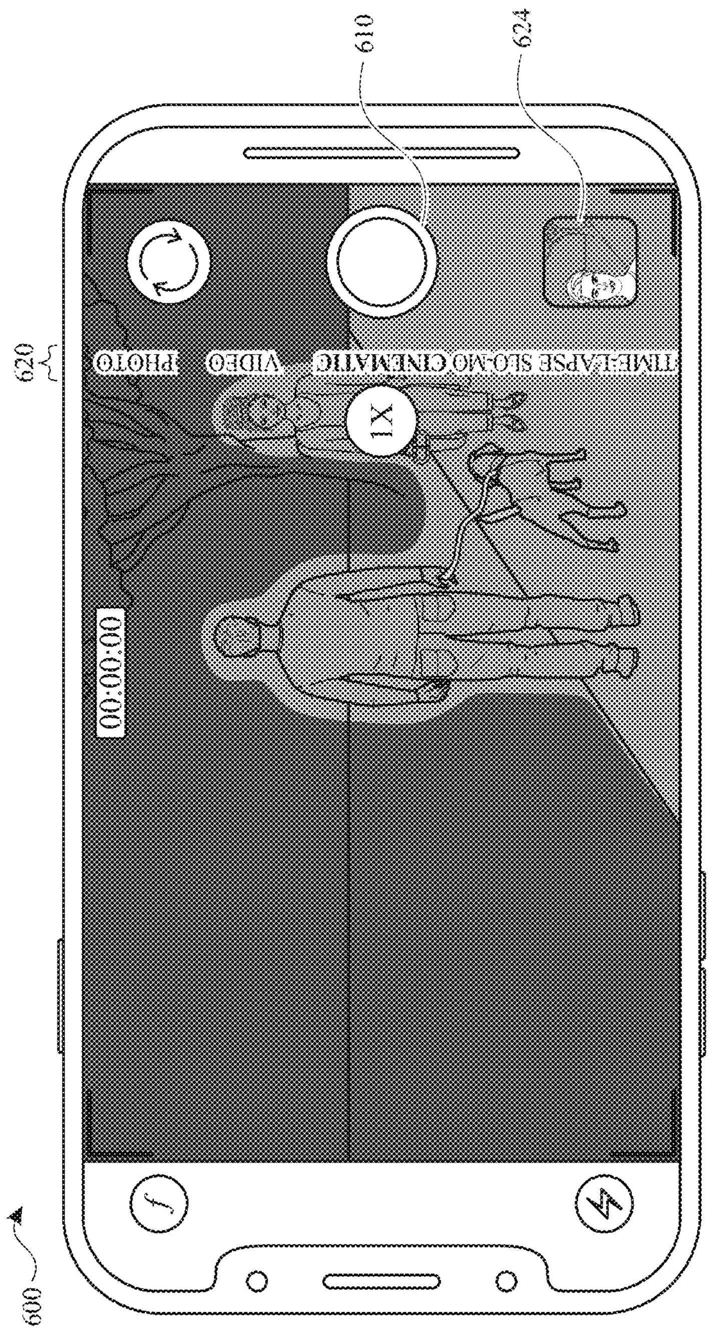

610
624
620
600
TIME-LAPSE
SLO-MO
CINEMATIC
VIDEO
PHOTO
1X
00:00:00

FIG. 6AC

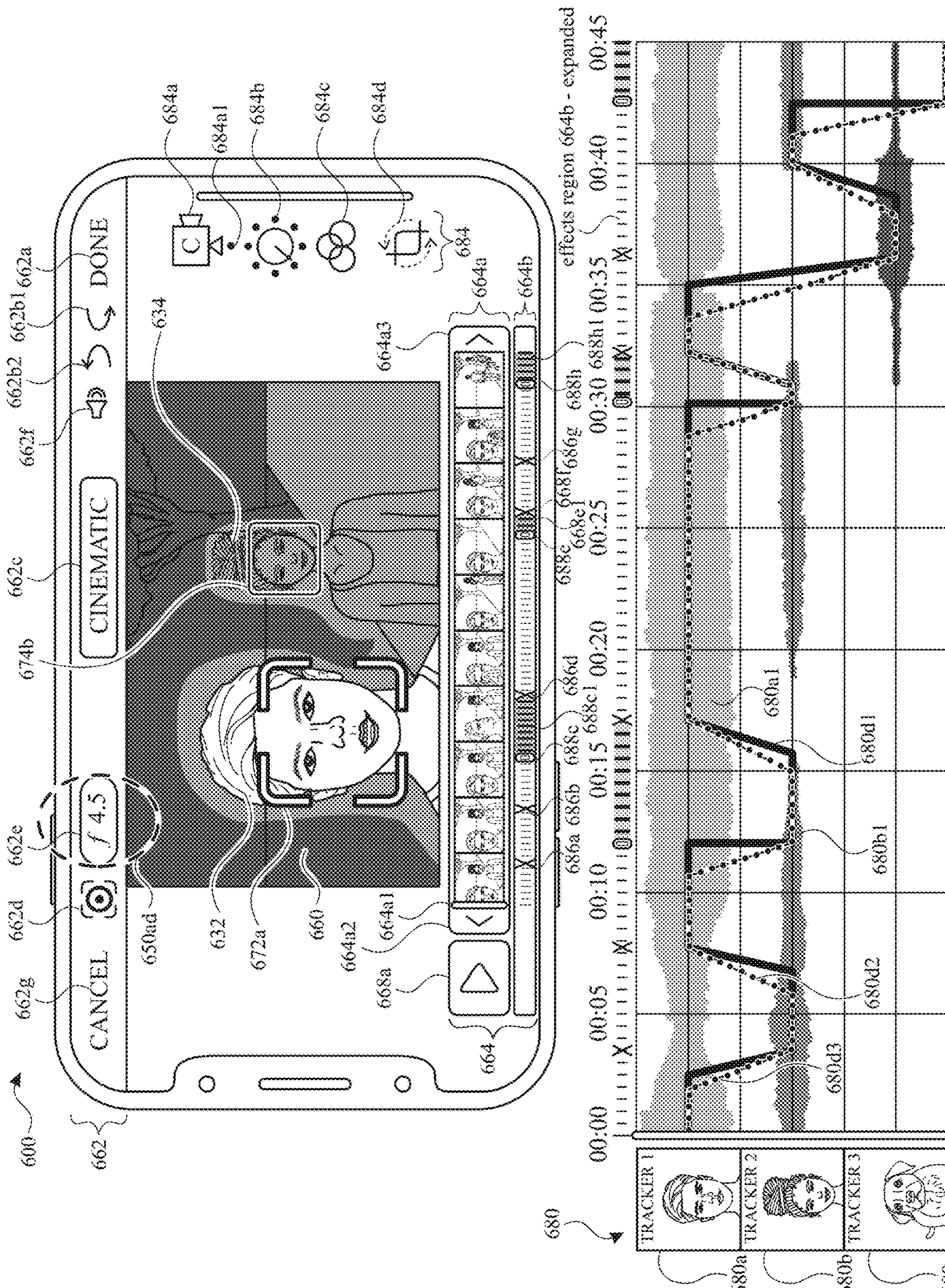
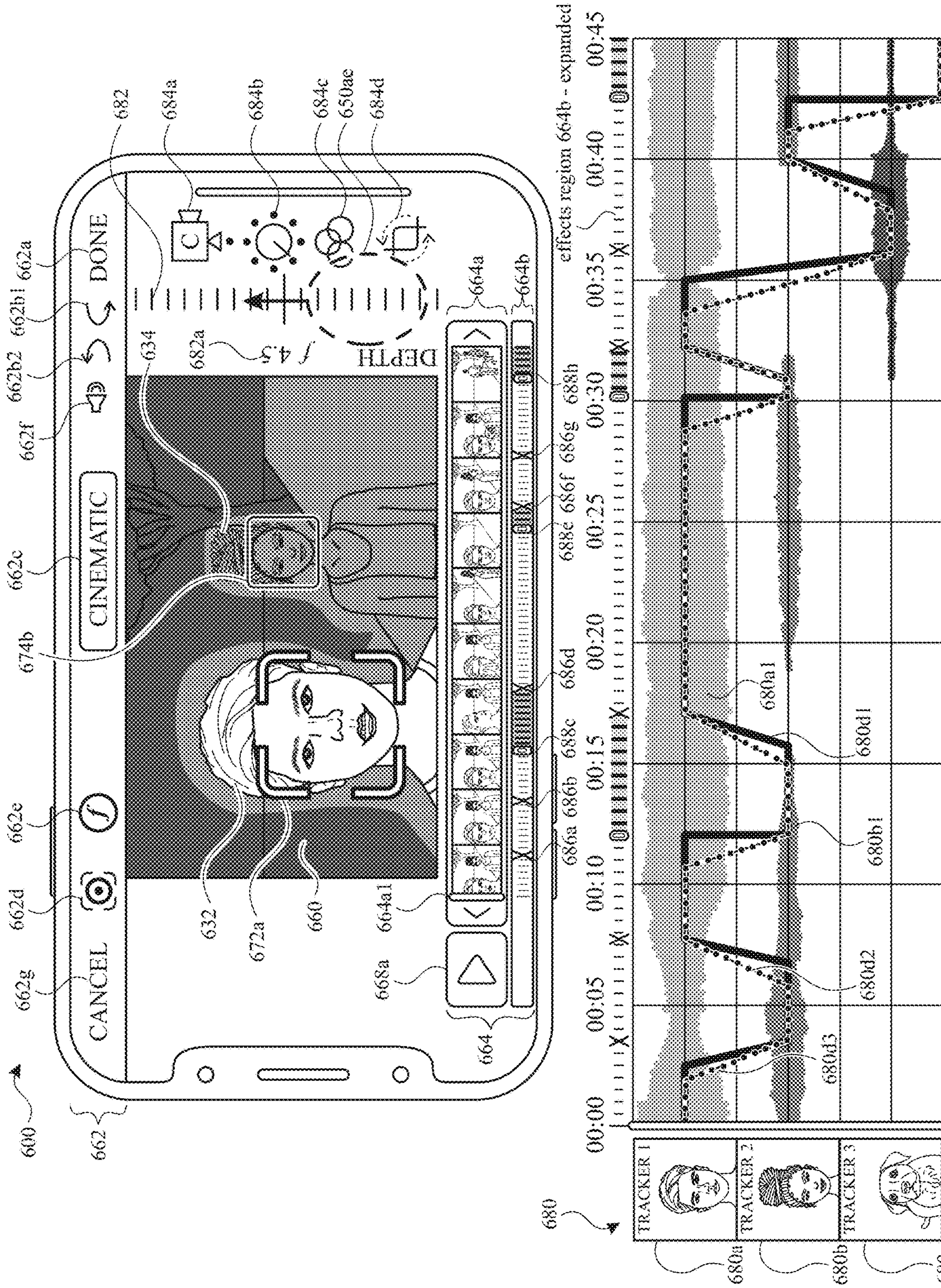

CANCEL
CINEMATIC
DONE
f 4.5
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
TRACKER 1
TRACKER 2
TRACKER 3

FIG. 6AD



CANCEL
CINEMATIC
DONE
f 4.5
DEPTH
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
TRACKER 1
TRACKER 2
TRACKER 3
600
662
662a
662b1
662b2
662c
662d
662e
662f
662g
674b
634
682
682a
684a
684b
684c
650ae
684d
632
672a
660
664a1
668a
664
664a
664b
686a
686b
688c
686d
688e
686f
686g
688h
680
680a
680b
680c
680a1
680b1
680d1
680d2
680d3

FIG. 6AE

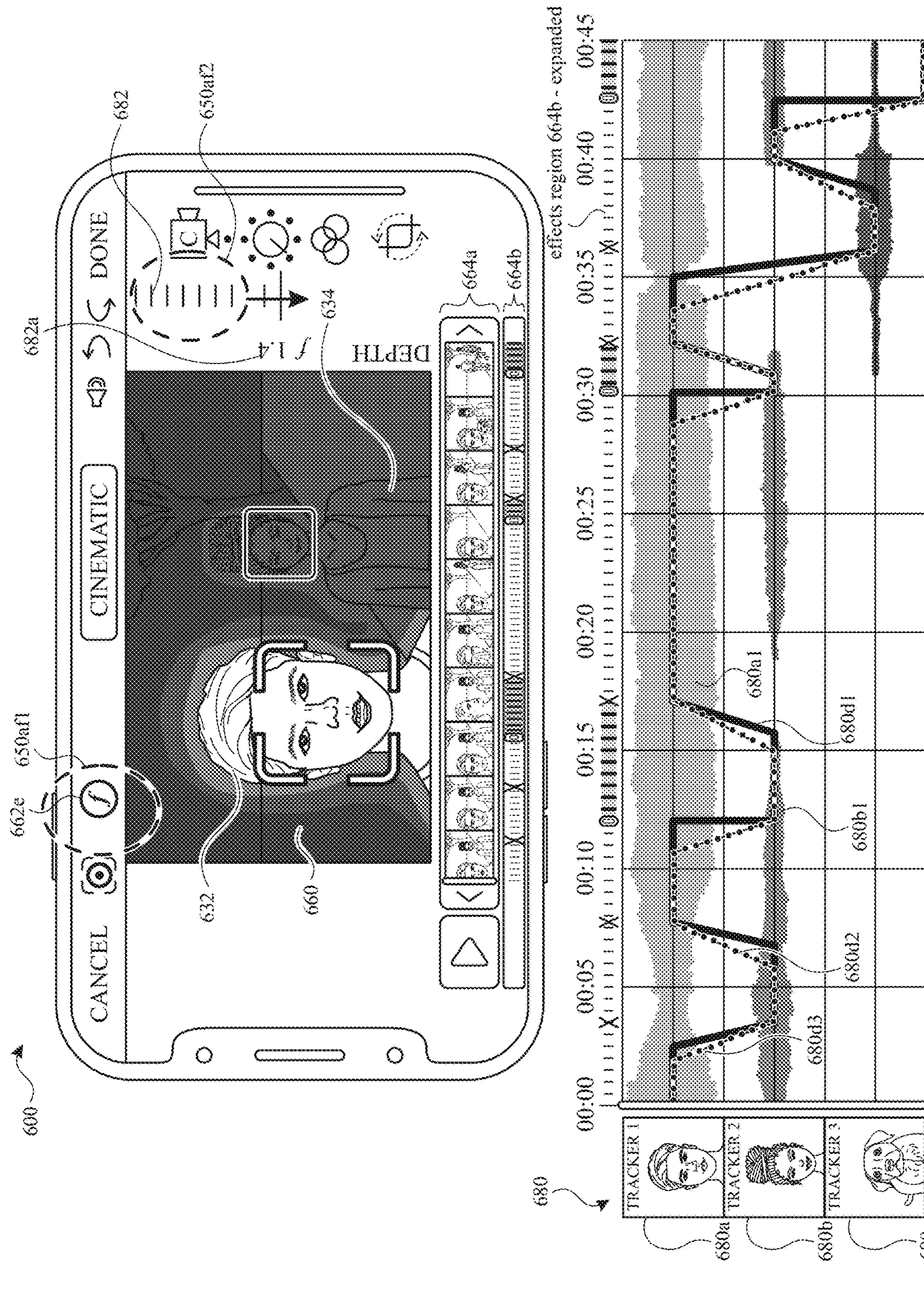

600
CANCEL
CINEMATIC
DONE
DEPTH
f 1.4
682
682a
650af1
650af2
662e
632
634
660
664a
664b
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
effects region 664b - expanded
680a1
680b1
680d1
680d2
680d3

FIG. 6AF

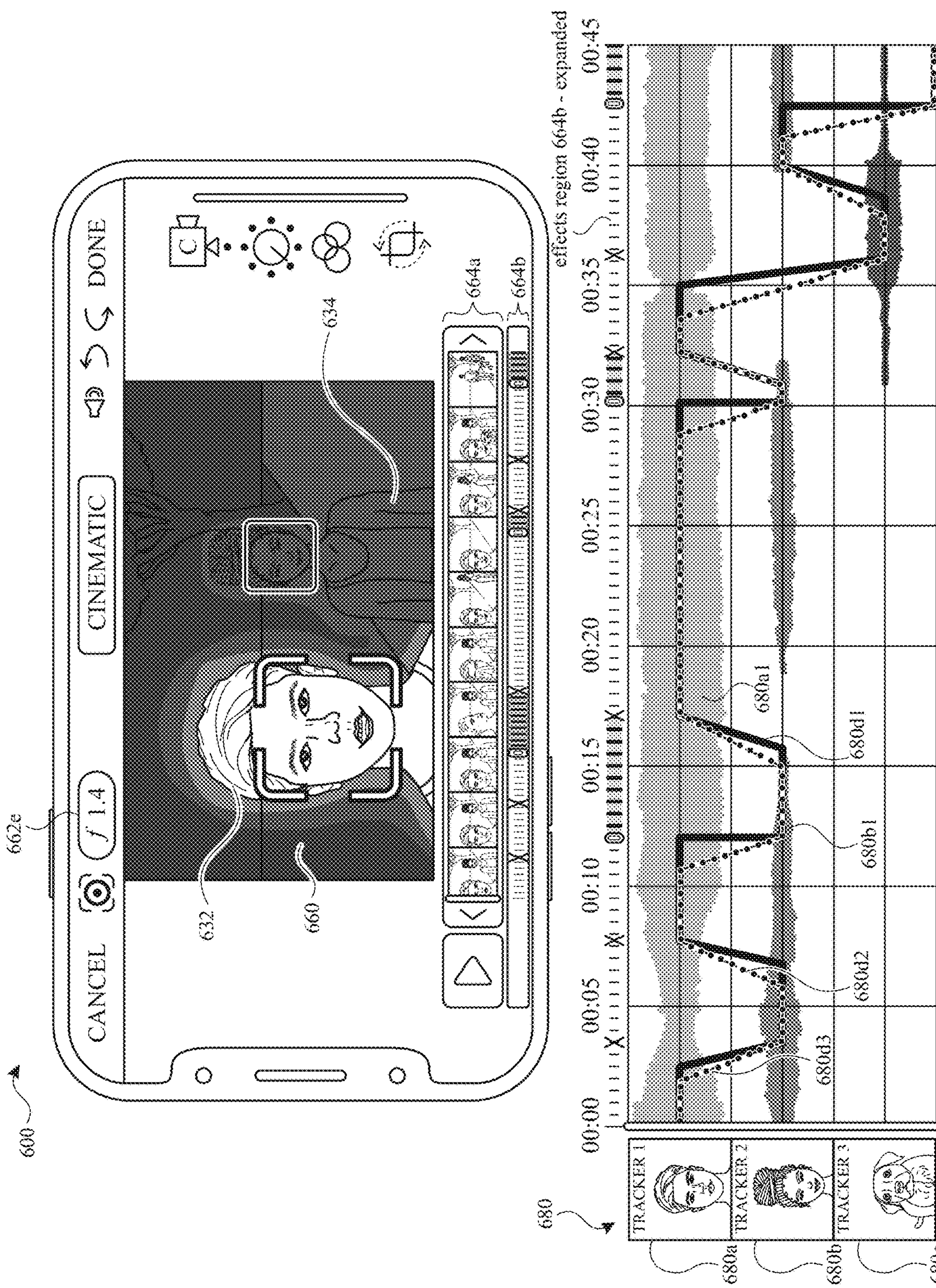

600
662e
CANCEL
f 1.4
CINEMATIC
DONE
632
660
634
664a
664b
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680d1
680b1
680d2
680d3

FIG. 6AF1

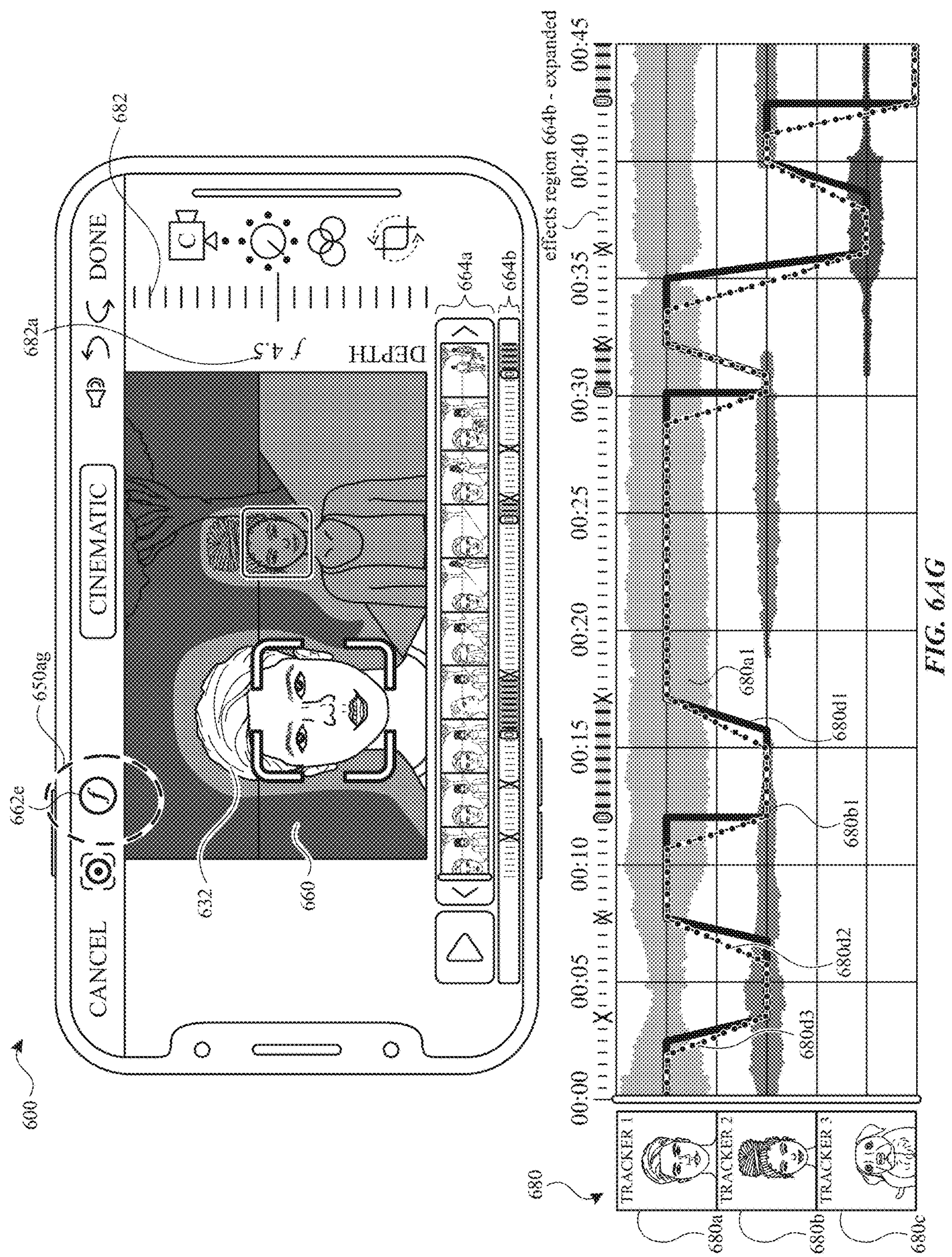

600
682
682a
650ag
662e
CANCEL
CINEMATIC
DONE
ƒ 4.5
DEPTH
632
660
664a
664b
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
TRACKER 1
TRACKER 2
TRACKER 3
680
680a
680b
680c
680a1
680b1
680d1
680d2
680d3

FIG. 6AG

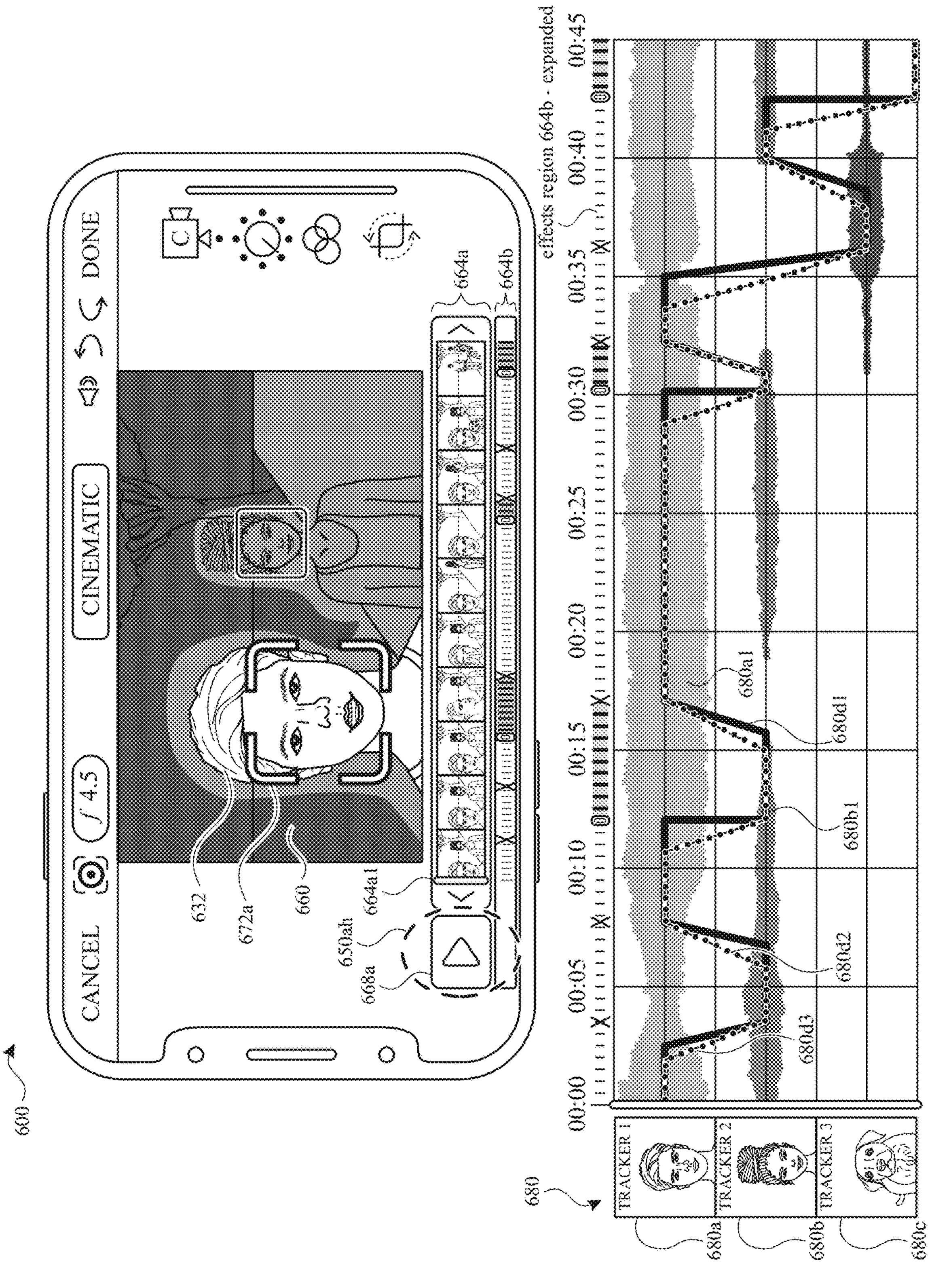

600
CANCEL
CINEMATIC
DONE
ƒ 4.5
632
672a
660
664a1
650ah
668a
664a
664b
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680d1
680d2
680d3

FIG. 6AH

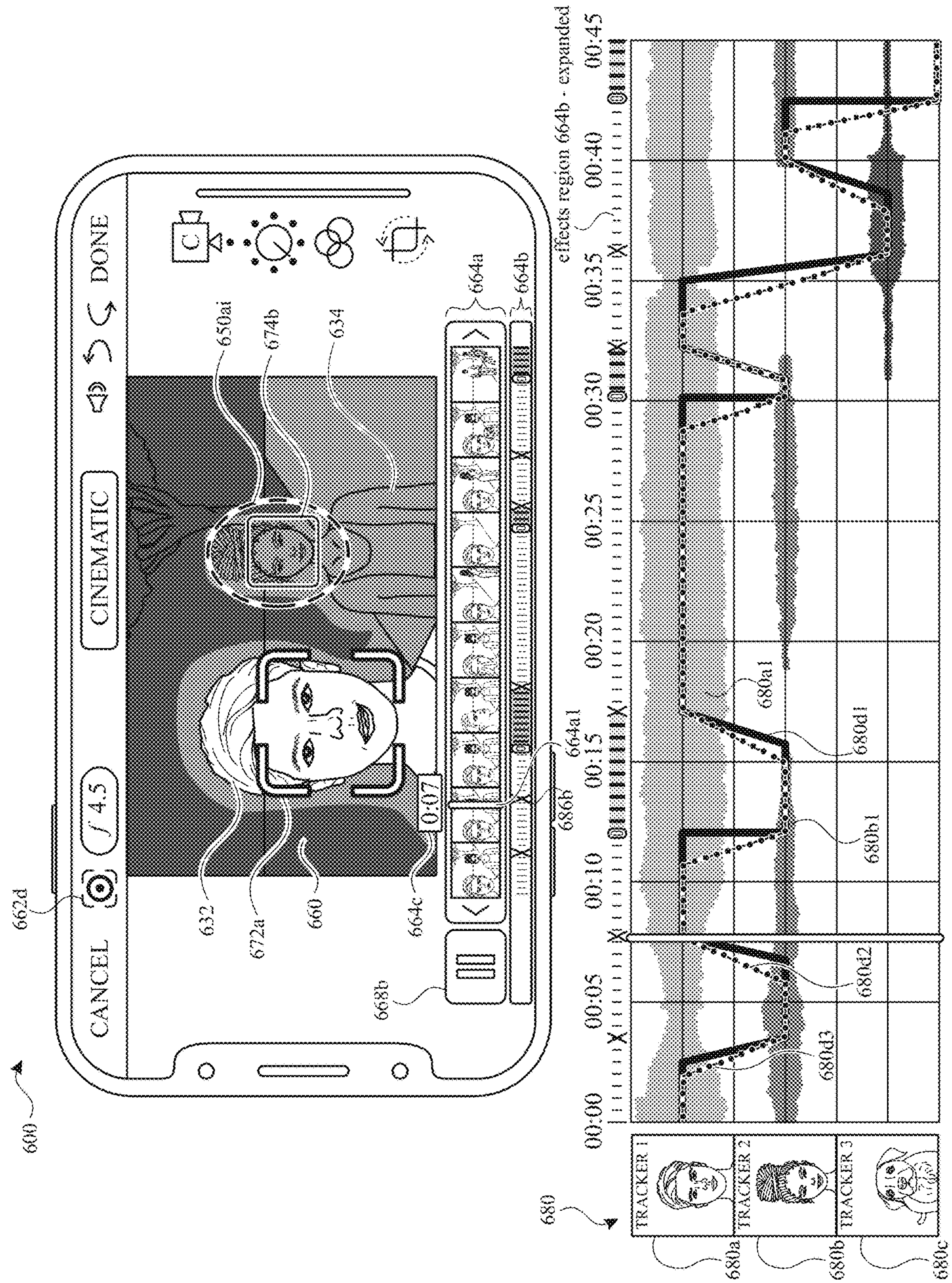

600
CANCEL
f 4.5
CINEMATIC
DONE
662d
632
672a
660
664c
668b
0:07
686b
664a1
650ai
674b
634
664a
664b
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680d1
680d2
680d3

FIG. 6AI

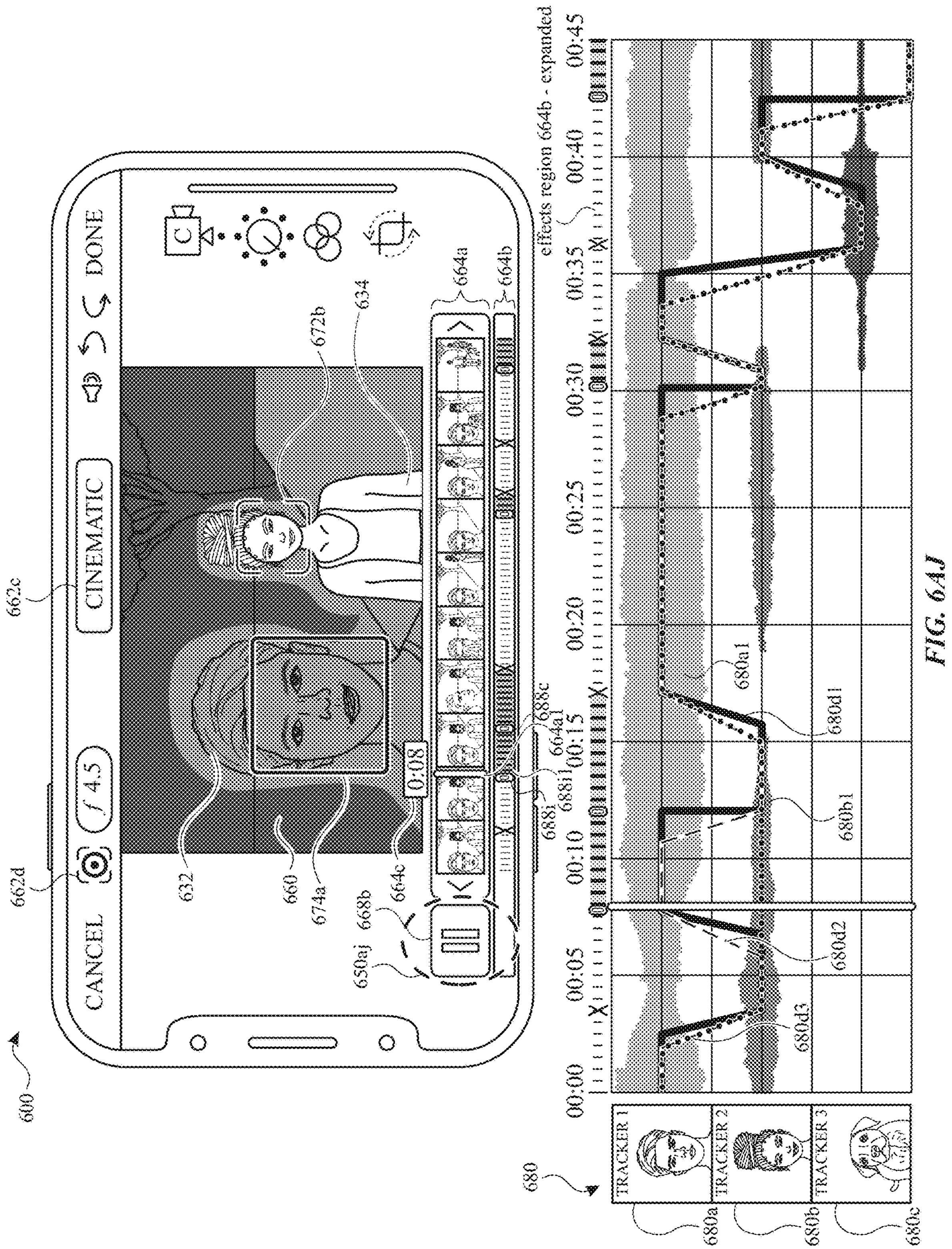

600
662c
662d
CINEMATIC
CANCEL
f 4.5
DONE
632
634
660
672b
674a
664a
664b
664c
668b
650aj
0:08
688c
664a1
688i
688i1
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
680a
680b
680c
680a1
680b1
680d1
680d2
680d3
TRACKER 1
TRACKER 2
TRACKER 3

FIG. 6AJ

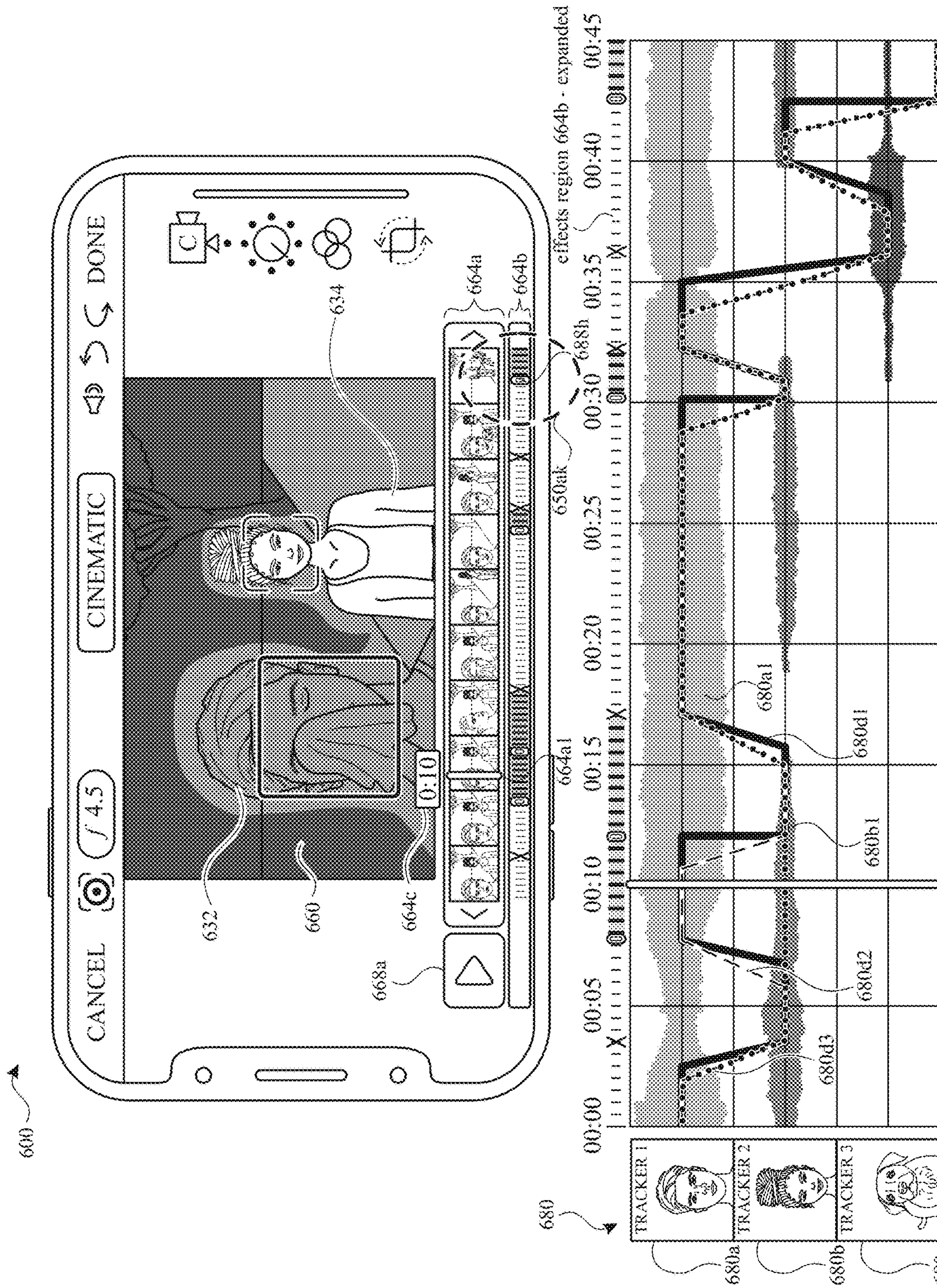

600
CANCEL
f 4.5
CINEMATIC
DONE
0:10
632
660
664c
668a
664a1
650ak
688h
664a
664b
634
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680d3
680d2
680b1
680d1
680a1
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c

FIG. 6AK

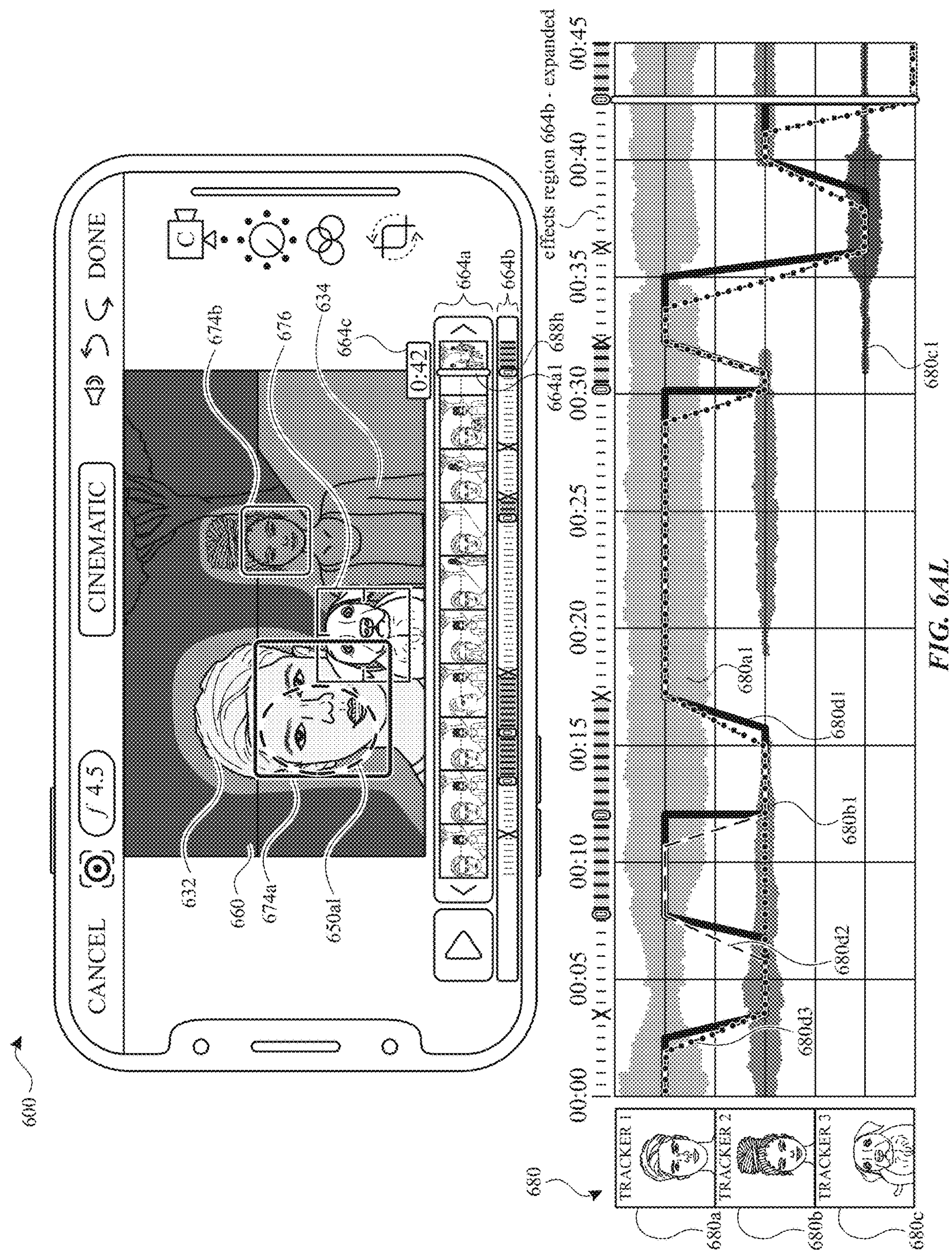

600
CANCEL
f 4.5
CINEMATIC
DONE
632
660
674a
650a1
674b
676
634
664c
0:42
664a
664b
664a1
688h
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
680d3

FIG. 6AL

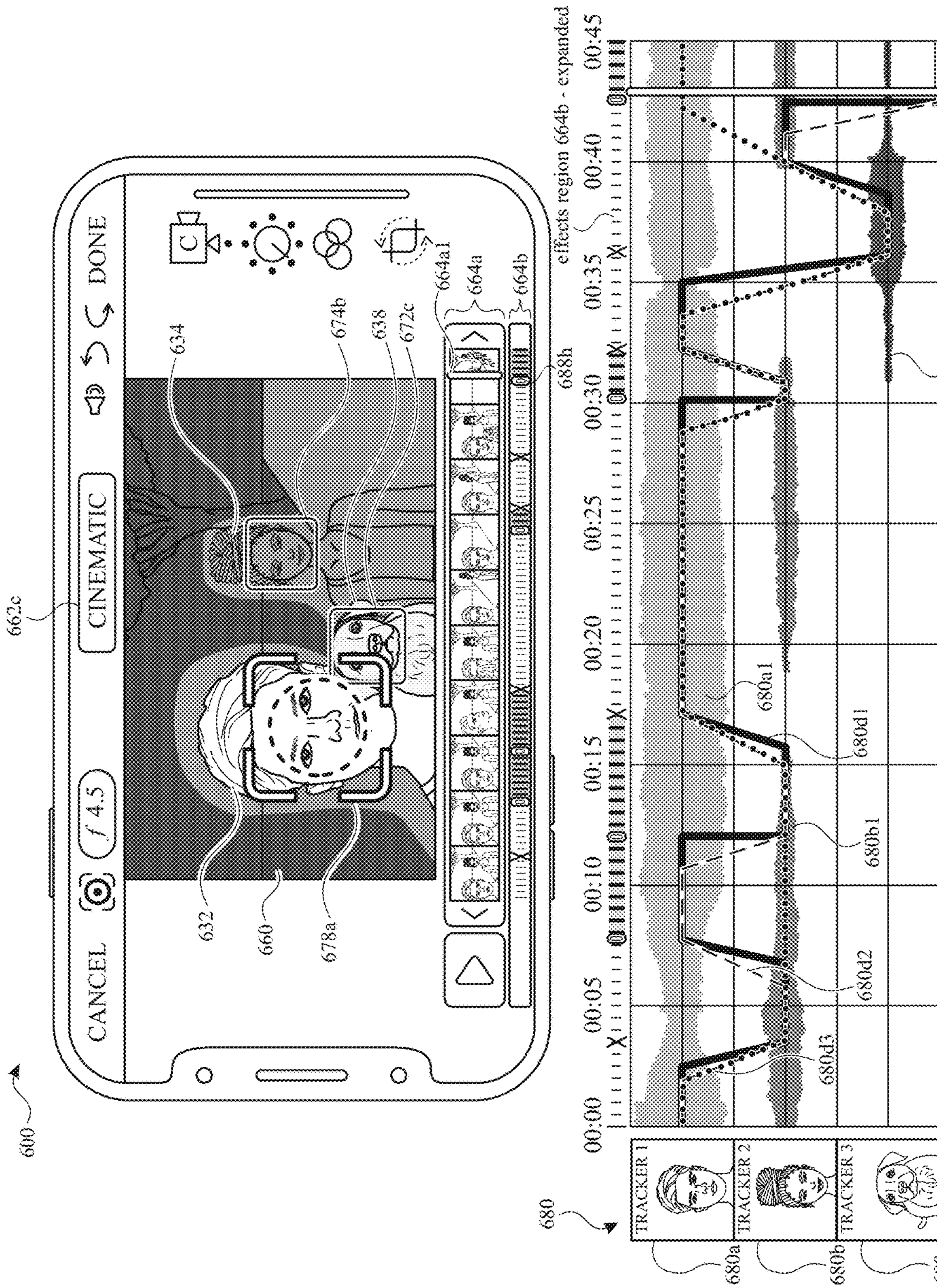

600
662c
CANCEL
f 4.5
CINEMATIC
DONE
C
634
674b
638
672c
664a1
664a
664b
632
660
678a
688h
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680a1
680d1
680b1
680d2
680d3
680c1
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c

FIG. 6AM

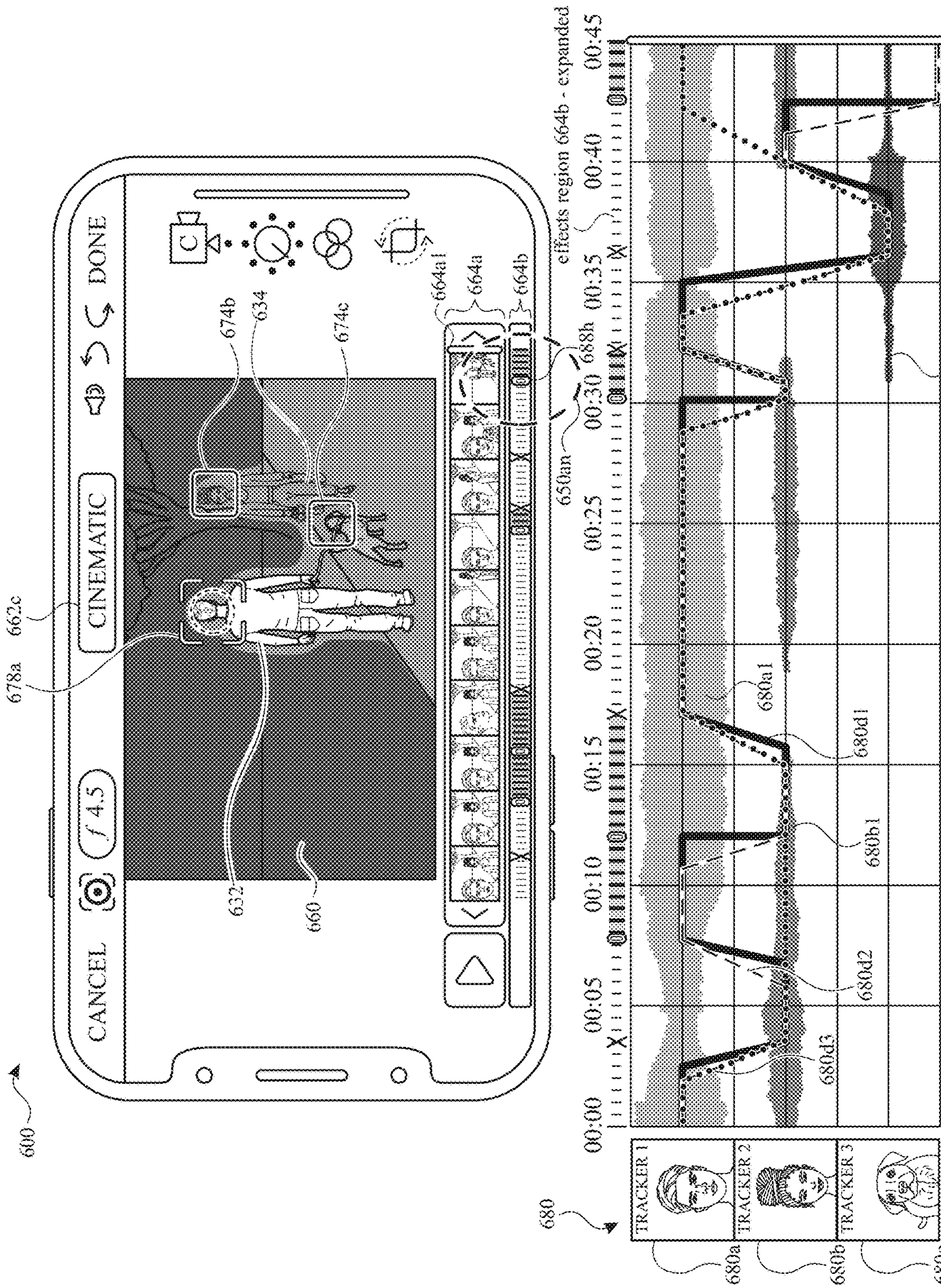

600
CANCEL
f 4.5
CINEMATIC
DONE
662c
678a
674b
634
674c
632
660
664a1
664a
664b
650an
688h
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
680d3

FIG. 6AN

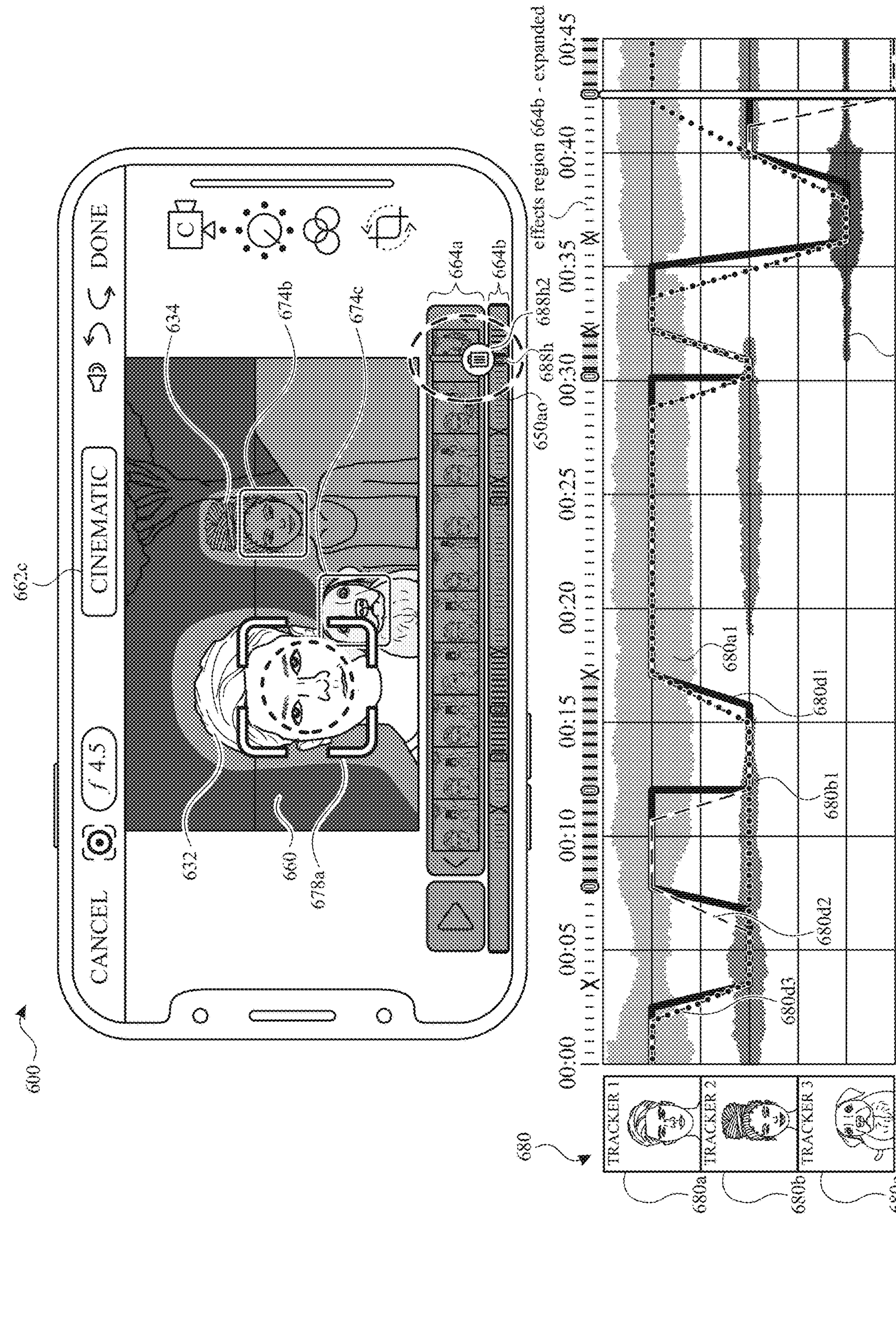

600
662c
CANCEL
f 4.5
CINEMATIC
DONE
C
632
660
678a
634
674b
674c
664a
664b
688h2
688h
650ao
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
680d3

FIG. 6AO

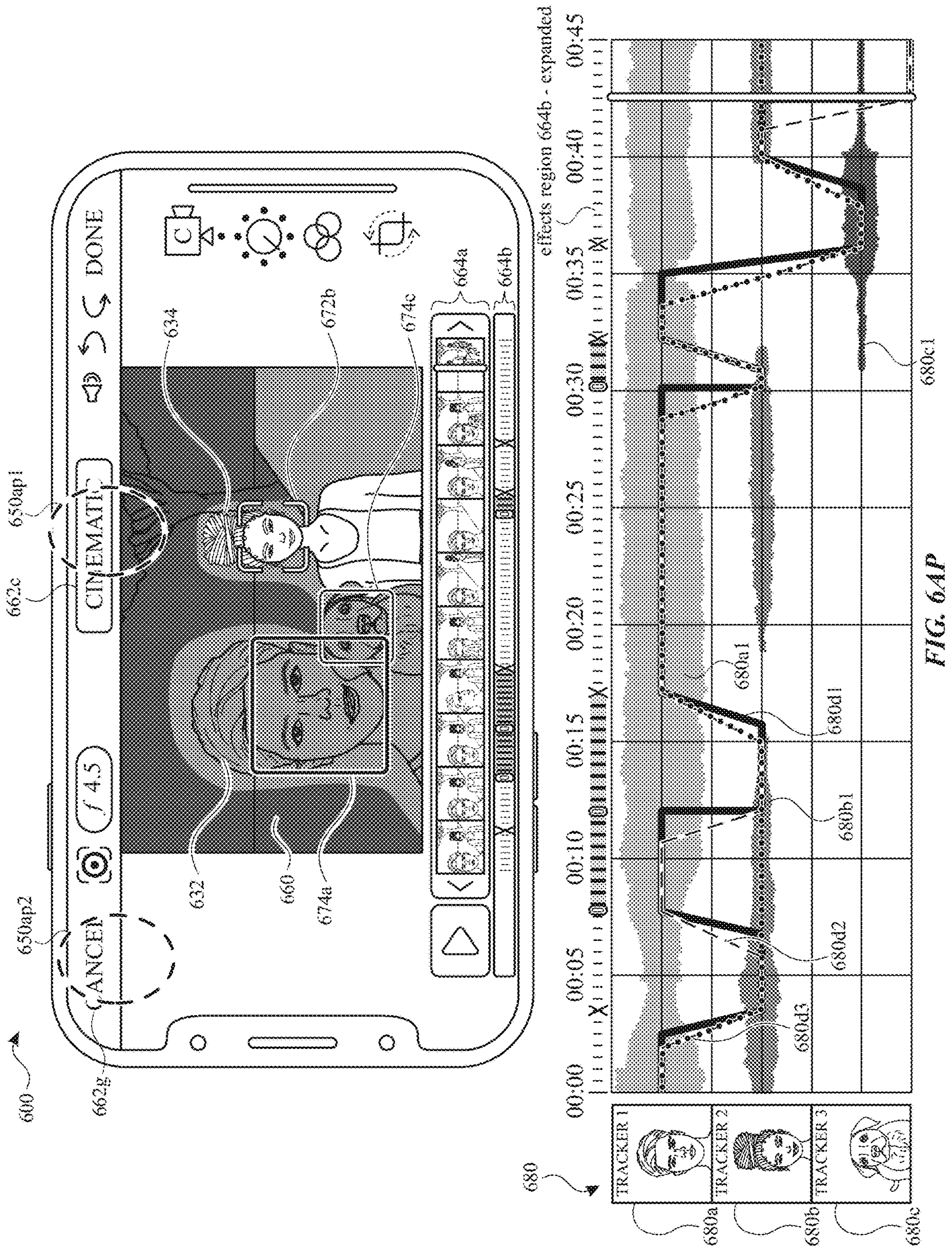

600
650ap2
662c
650ap1
CANCEL
CINEMATIC
f 4.5
DONE
C
632
660
674a
634
672b
674c
664a
664b
662g
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
680d3

FIG. 6AP

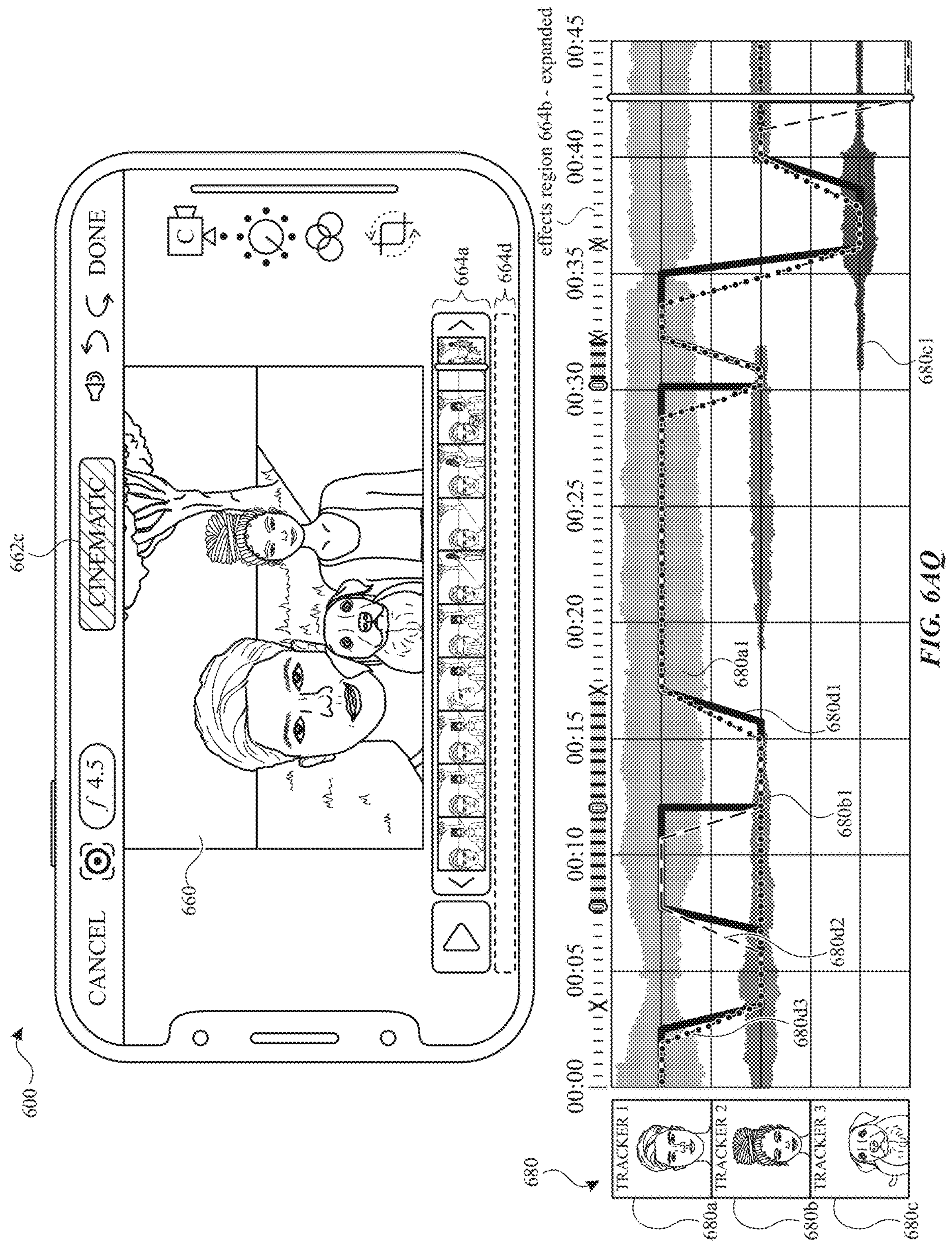
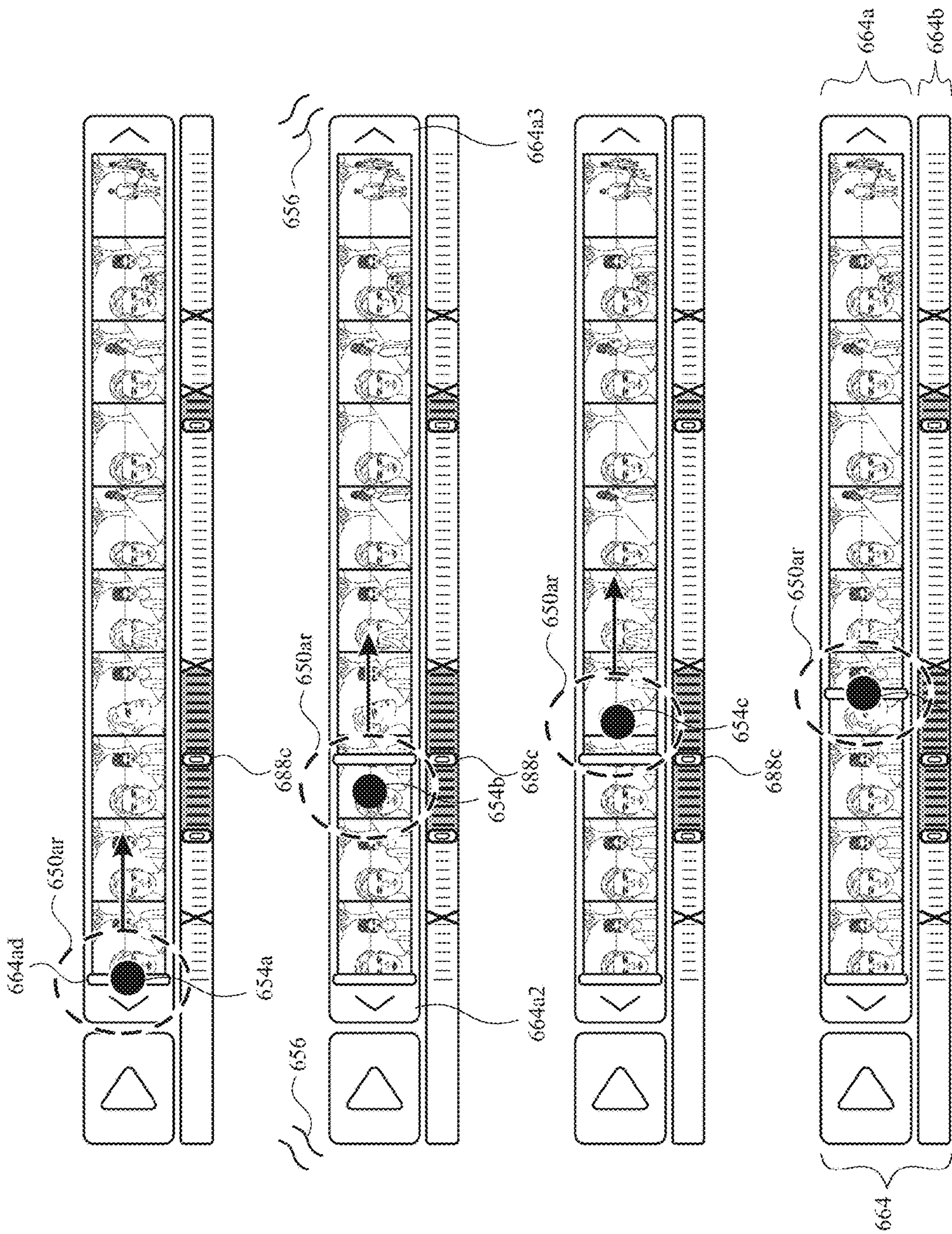

600
662c
CANCEL
f 4.5
CINEMATIC
DONE
660
664a
664d
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
680d3

FIG. 6AQ



664a
664b
656
664a3
656
664a2
664ad
650ar
654a
688c
654b
654c
654d
664

FIG. 6AR

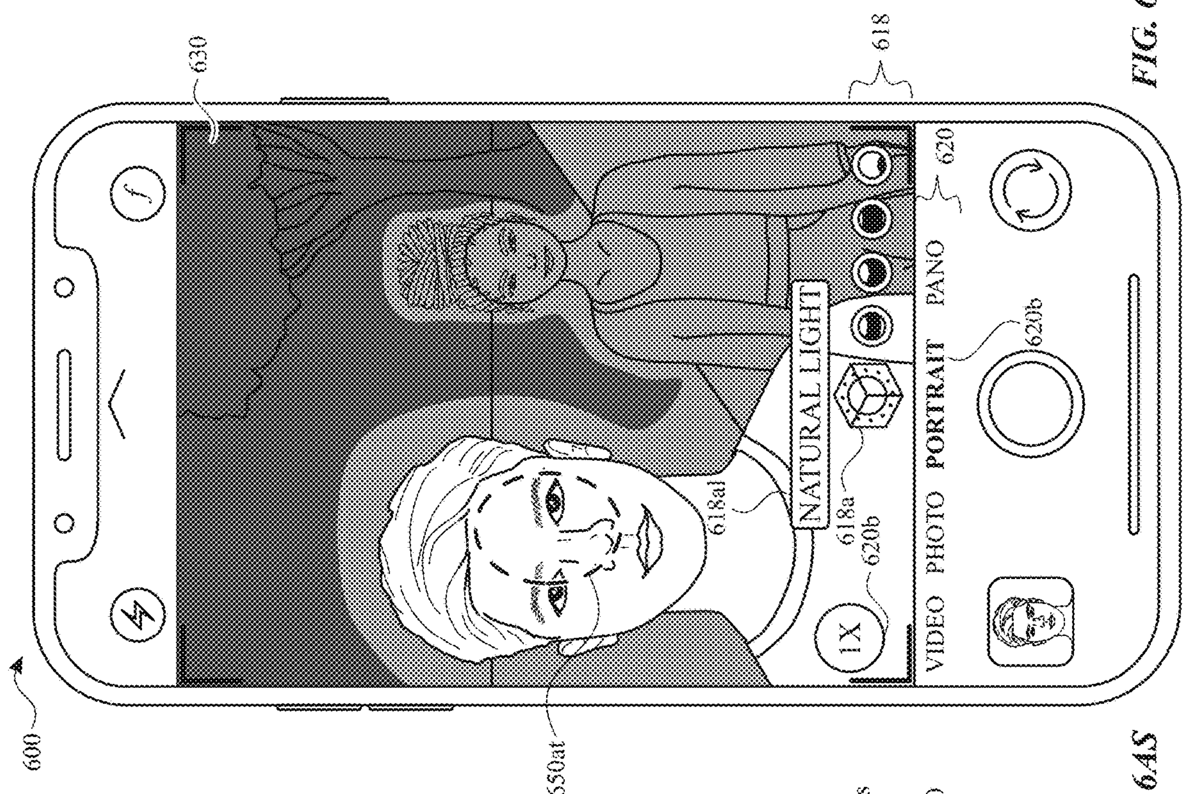


FIG. 6AT

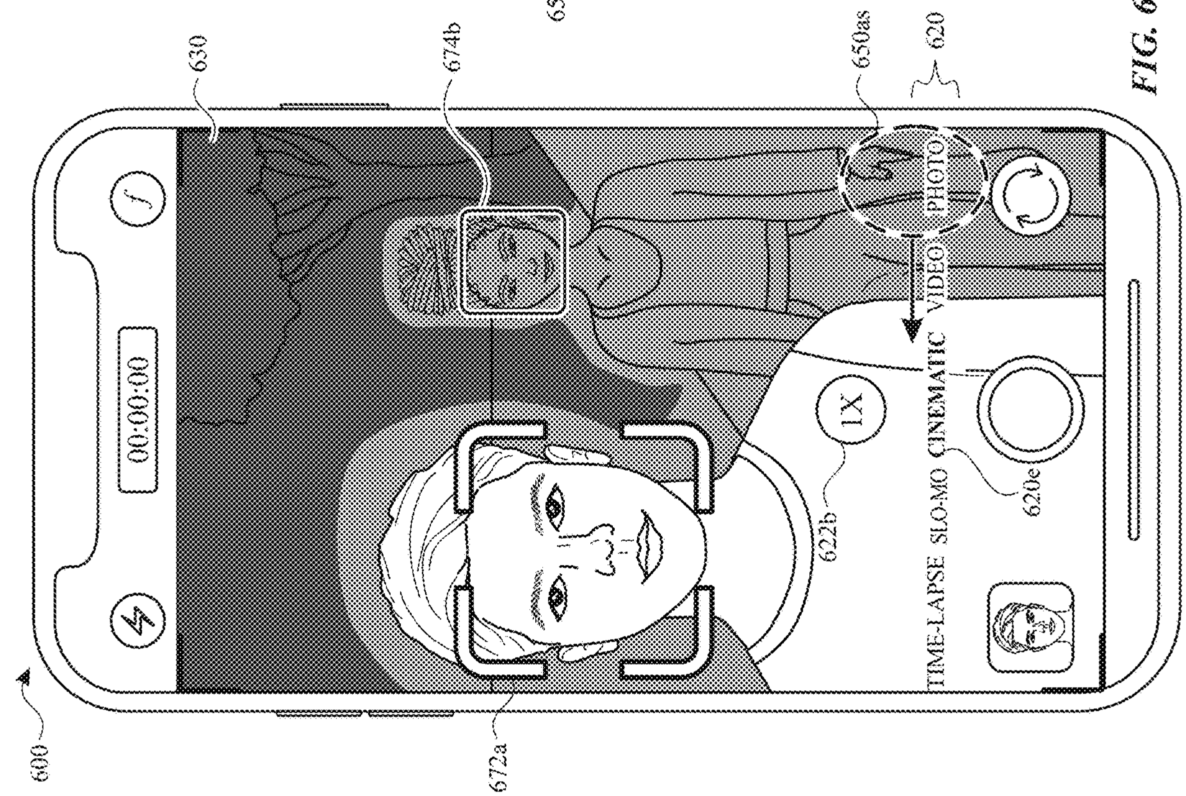


FIG. 6AS

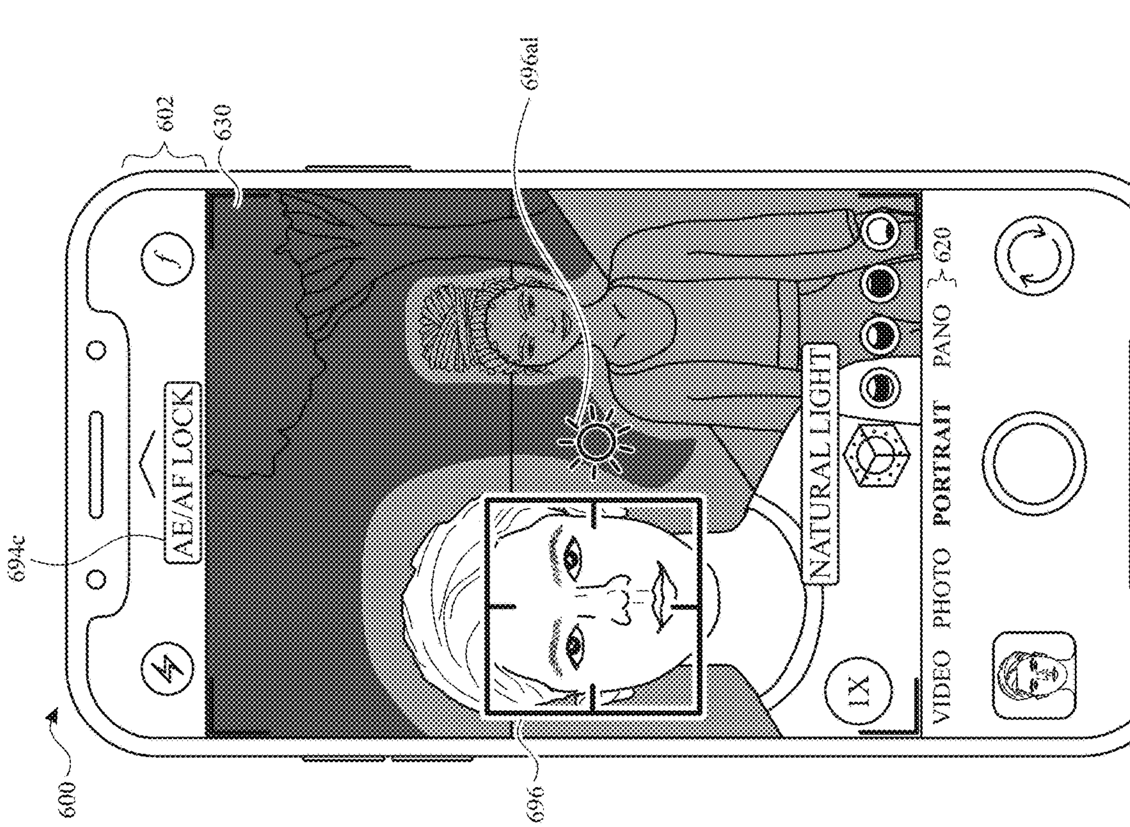

600
602
630
694c
AE/AF LOCK
696ai
696
NATURAL LIGHT
620
1X
VIDEO
PHOTO
PORTRAIT
PANO

FIG. 6AU

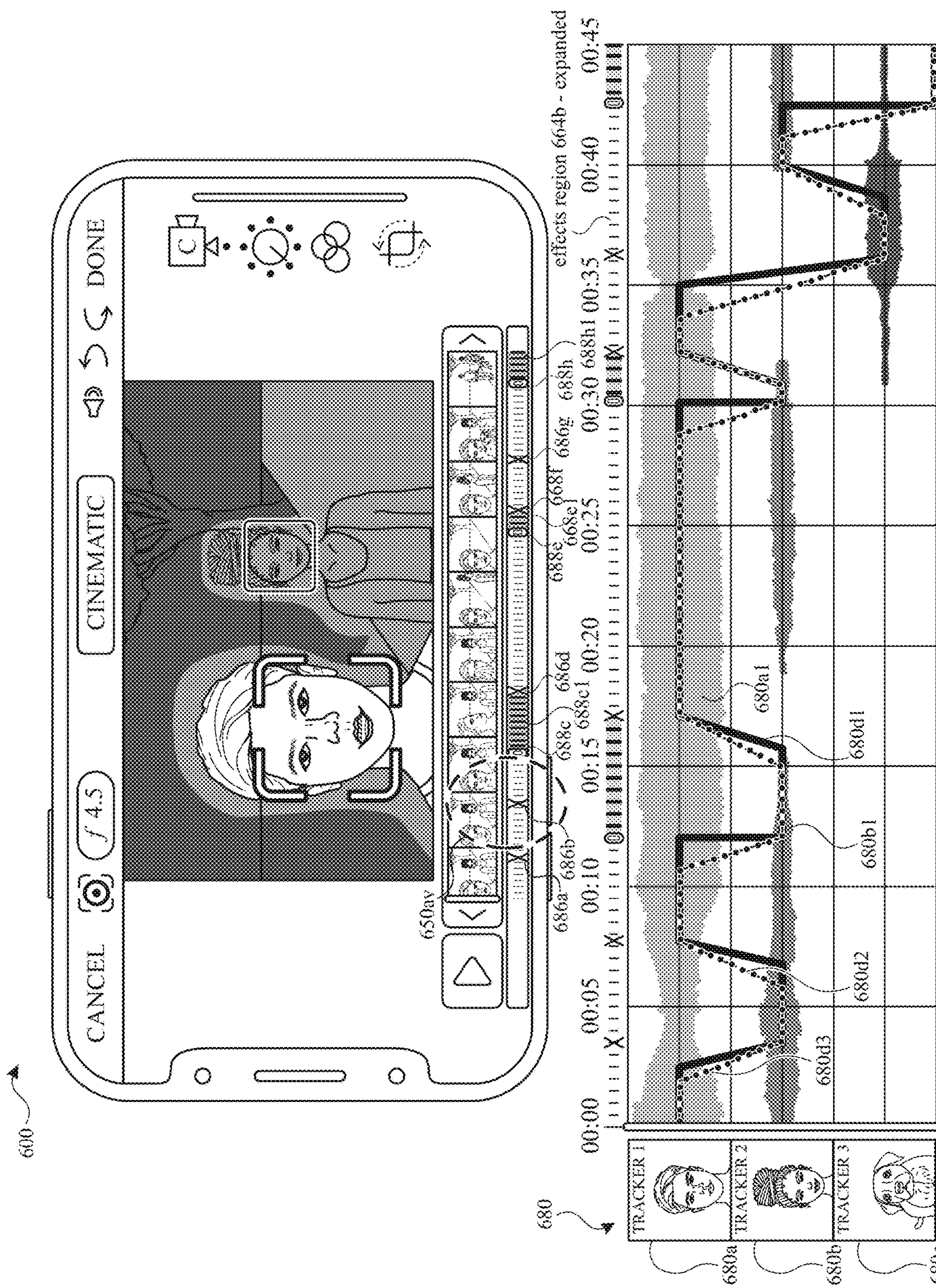

600
CANCEL
f 4.5
CINEMATIC
DONE
650av
686a
686b
688c
688c1
686d
688e
668e1
668f
686g
688h
688h1
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680d1
680d2
680d3

FIG. 6AV

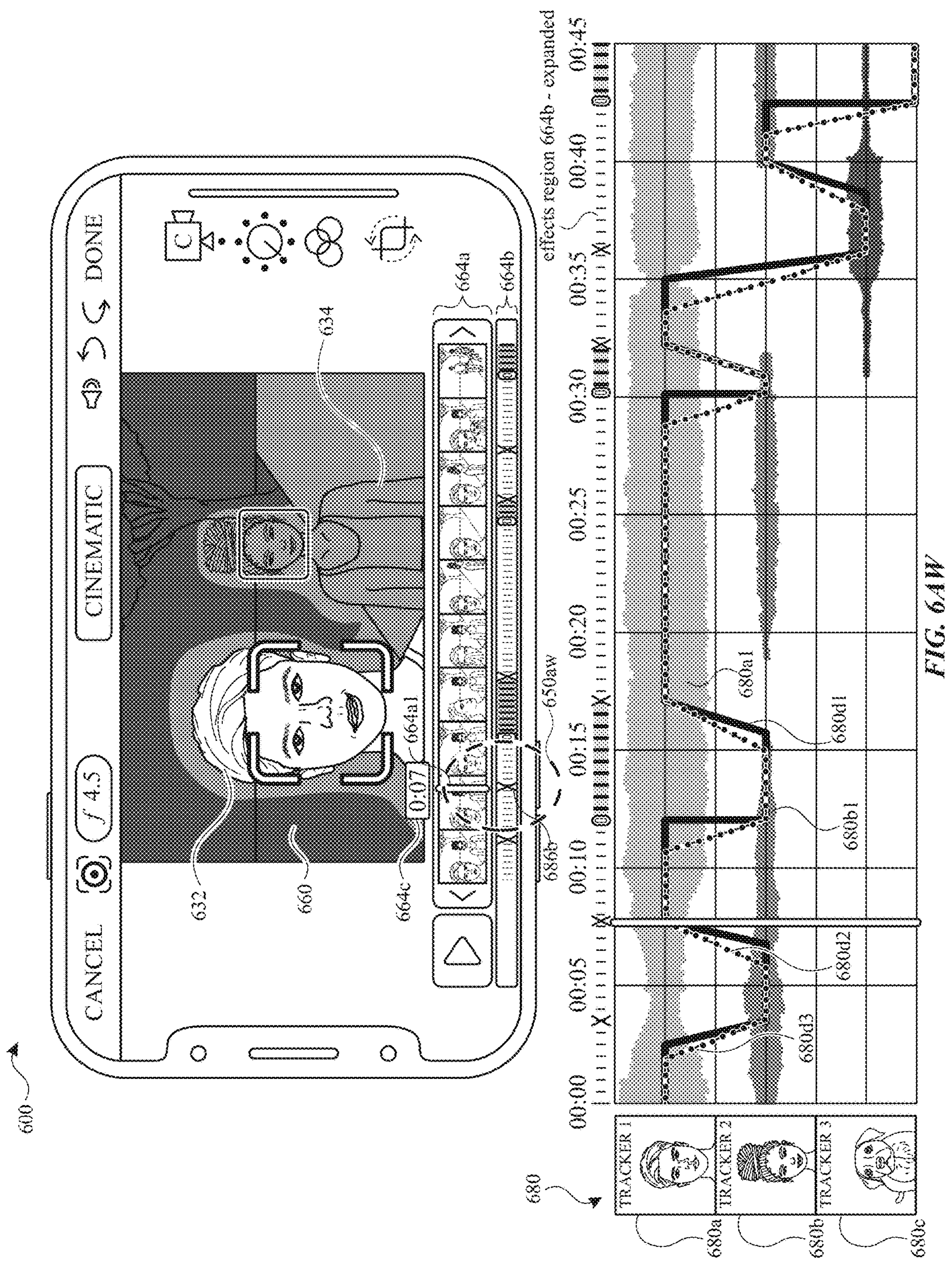

600
CANCEL
f 4.5
CINEMATIC
DONE
C
632
660
664c
0:07
664a1
650aw
686b
634
664a
664b
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680a1
680b1
680d1
680d2
680d3
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c

FIG. 6AW

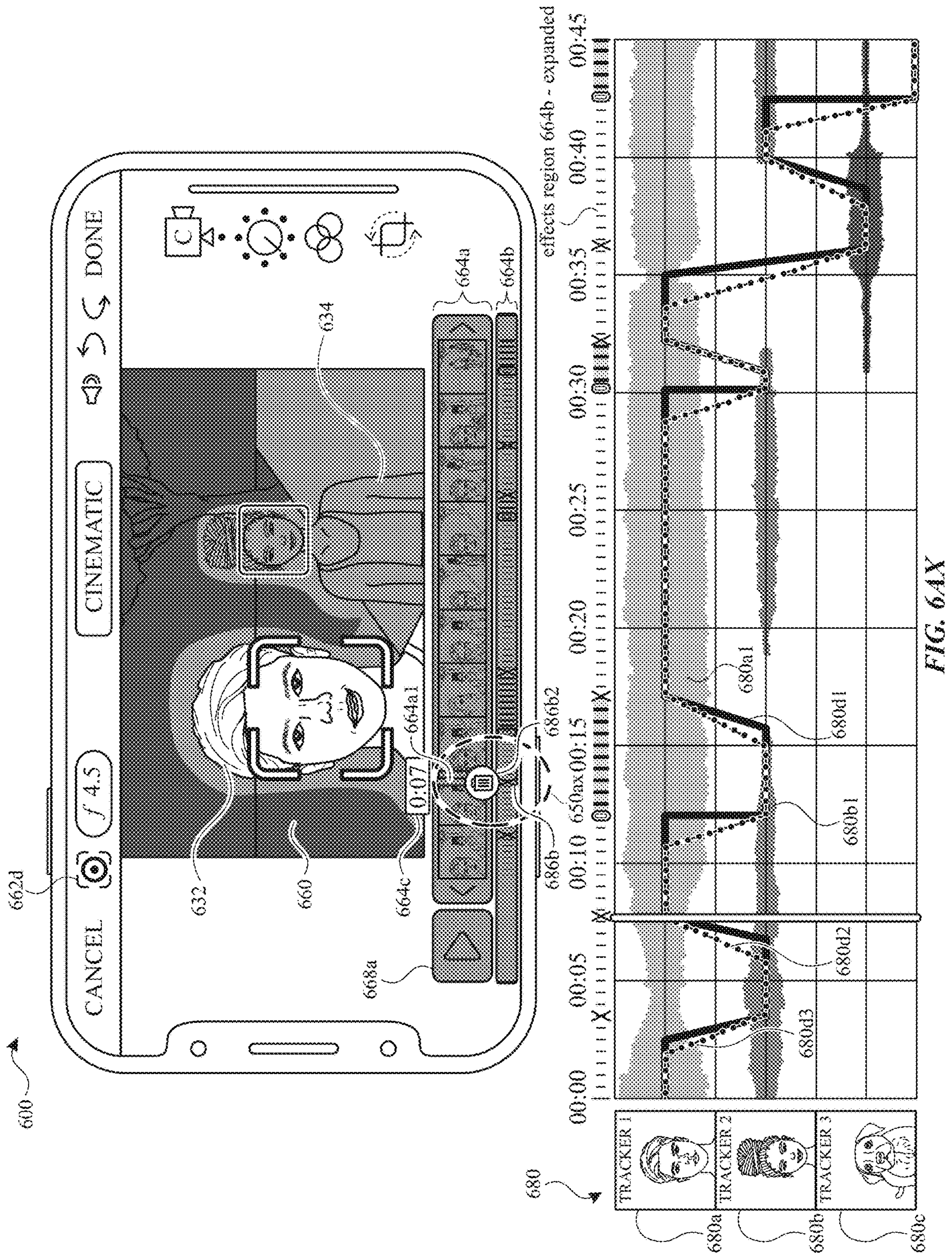

600
662d
CANCEL
f 4.5
CINEMATIC
DONE
632
634
660
664a
664b
664c
664a1
668a
0:07
650ax
686b
686b2
680
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680a1
680b1
680d1
680d2
680d3
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c

FIG. 6AX

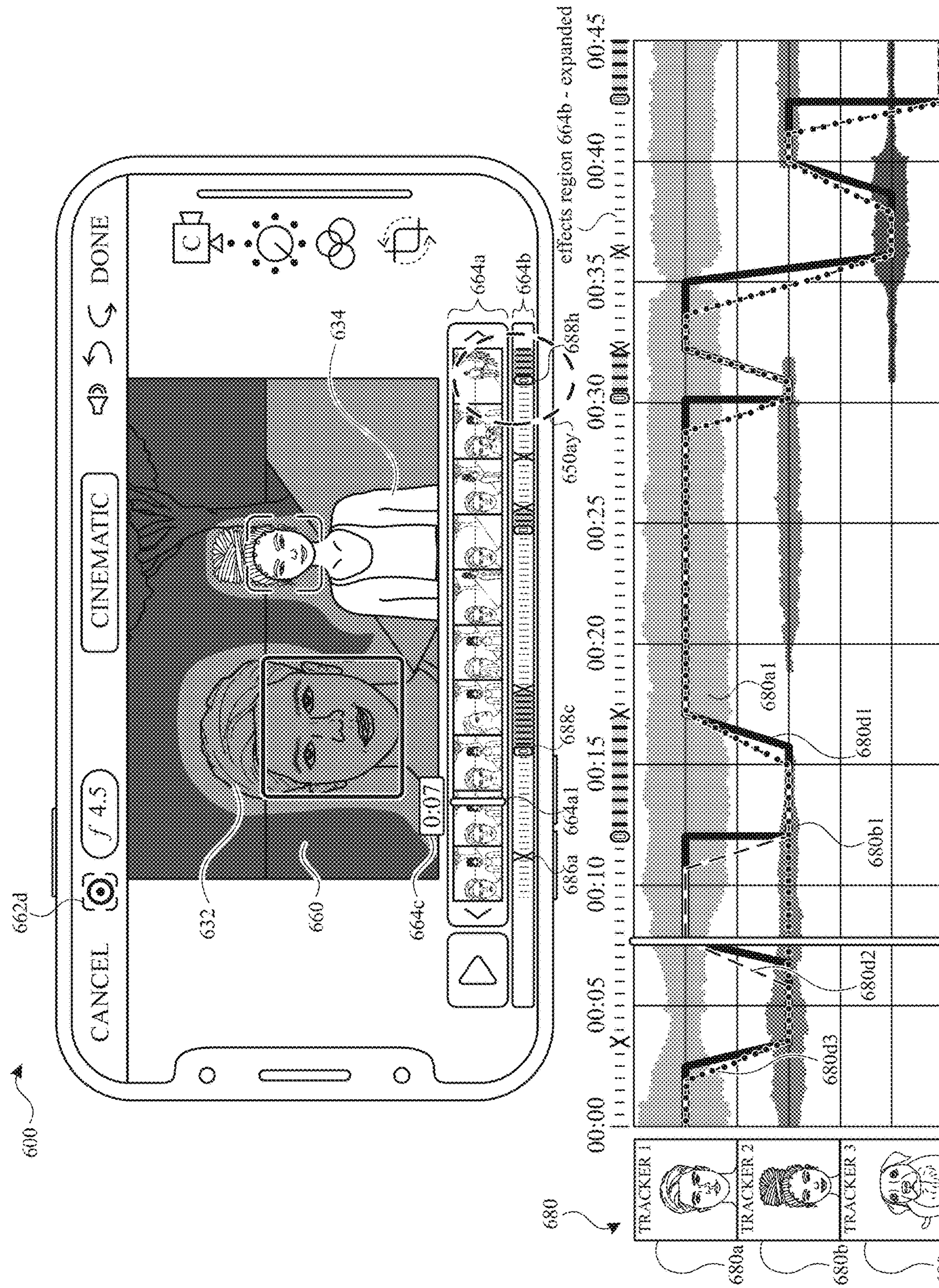

600
662d
CANCEL
f 4.5
CINEMATIC
DONE
C
634
632
660
664c
0:07
686a
664a1
688c
650ay
688h
664a
664b
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680a1
680d1
680b1
680d2
680d3
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c

FIG. 6AY

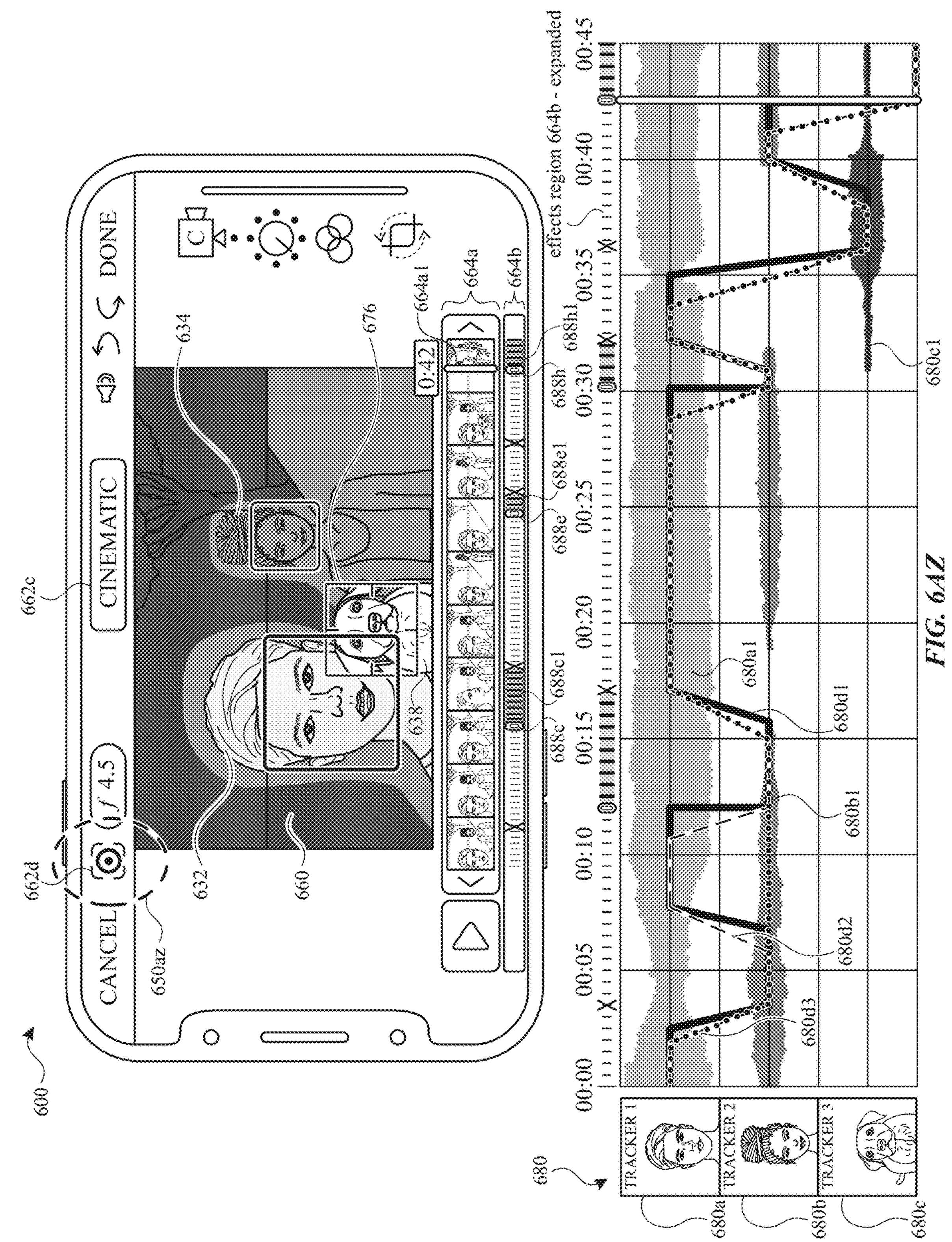

600
662c
CINEMATIC
662d
650az
CANCEL
f 4.5
DONE
632
634
638
660
676
0:42
664a
664a1
664b
688c
688c1
688e
688e1
688h
688h1
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
680d3

FIG. 6AZ

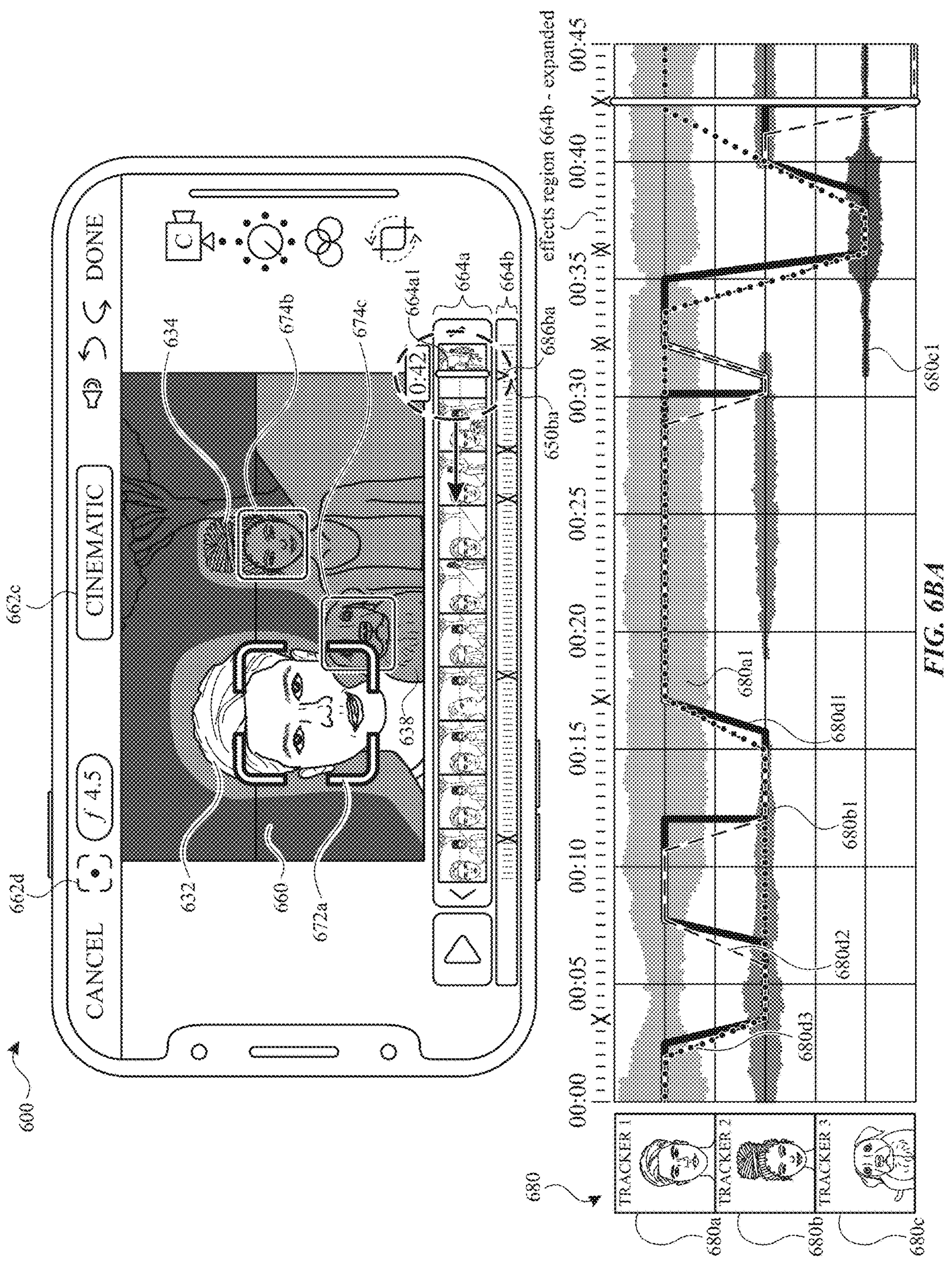

600
662c
662d
CANCEL
f 4.5
CINEMATIC
DONE
632
660
672a
634
674b
674c
638
0:42
664a1
664a
664b
686ba
650ba
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
680d3

FIG. 6BA

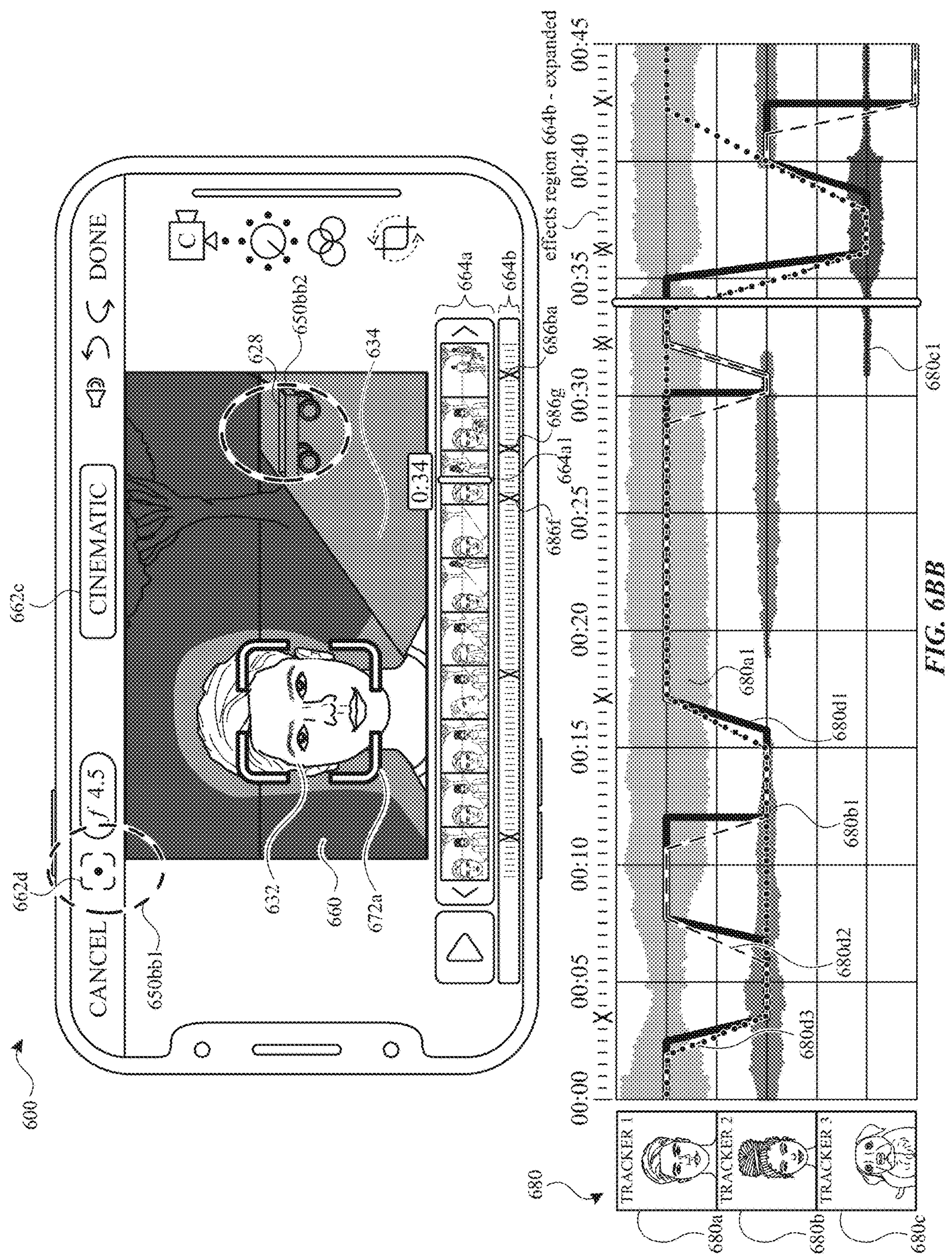

600
662c
CINEMATIC
662d
f 4.5
CANCEL
DONE
650bb1
650bb2
628
634
632
660
672a
0:34
664a
664b
686ba
686g
664a1
686f
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680a1
680b1
680c1
680d1
680d2
680d3
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c

FIG. 6BB

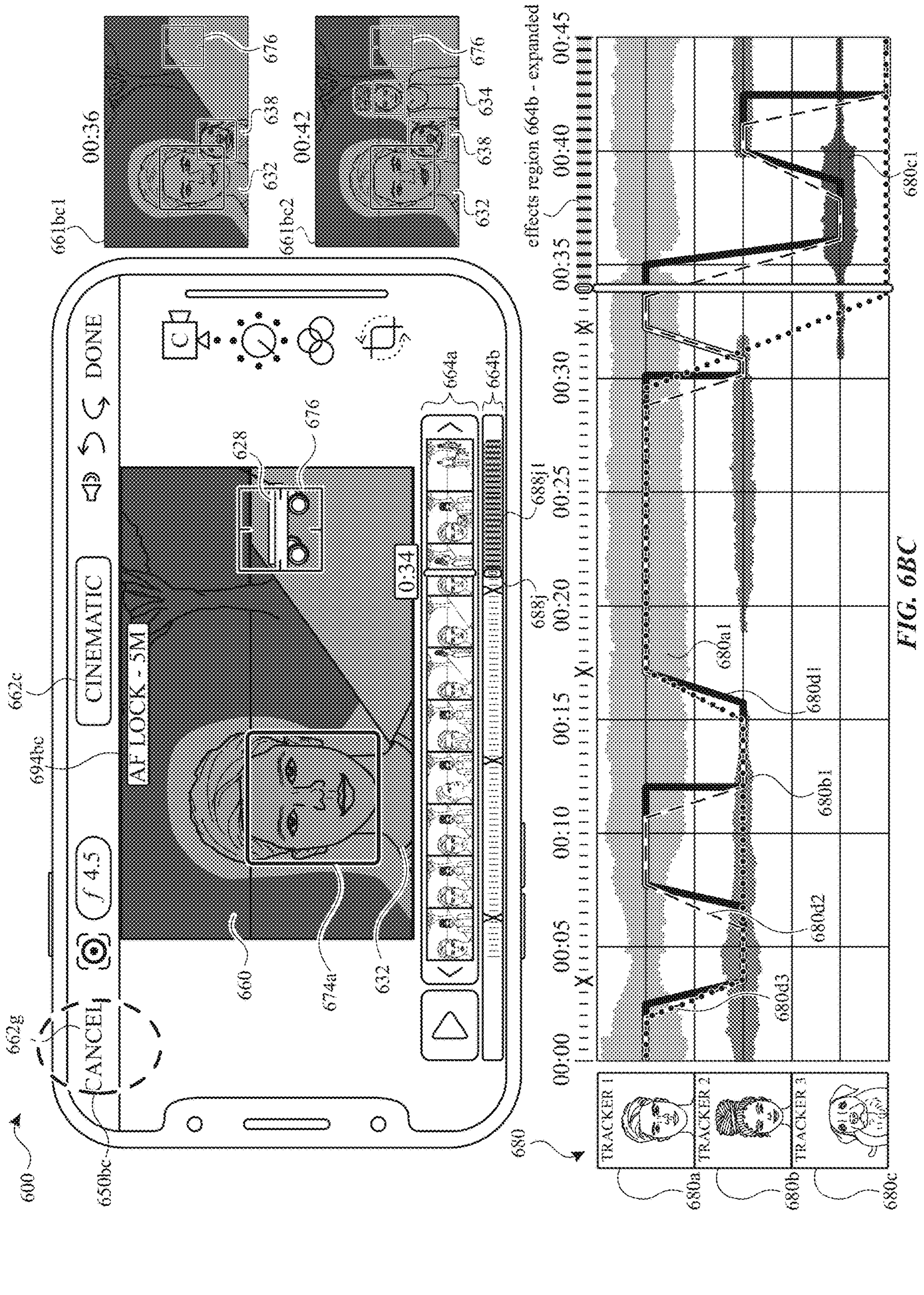

600
650bc
662g
CANCEL
662c
CINEMATIC
694bc
AF LOCK - 5M
f 4.5
DONE
660
674a
632
628
676
0:34
664a
664b
688j
688j1
661bc1
00:36
638
661bc2
00:42
634
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680c1
680d1
680d2
680d3

FIG. 6BC

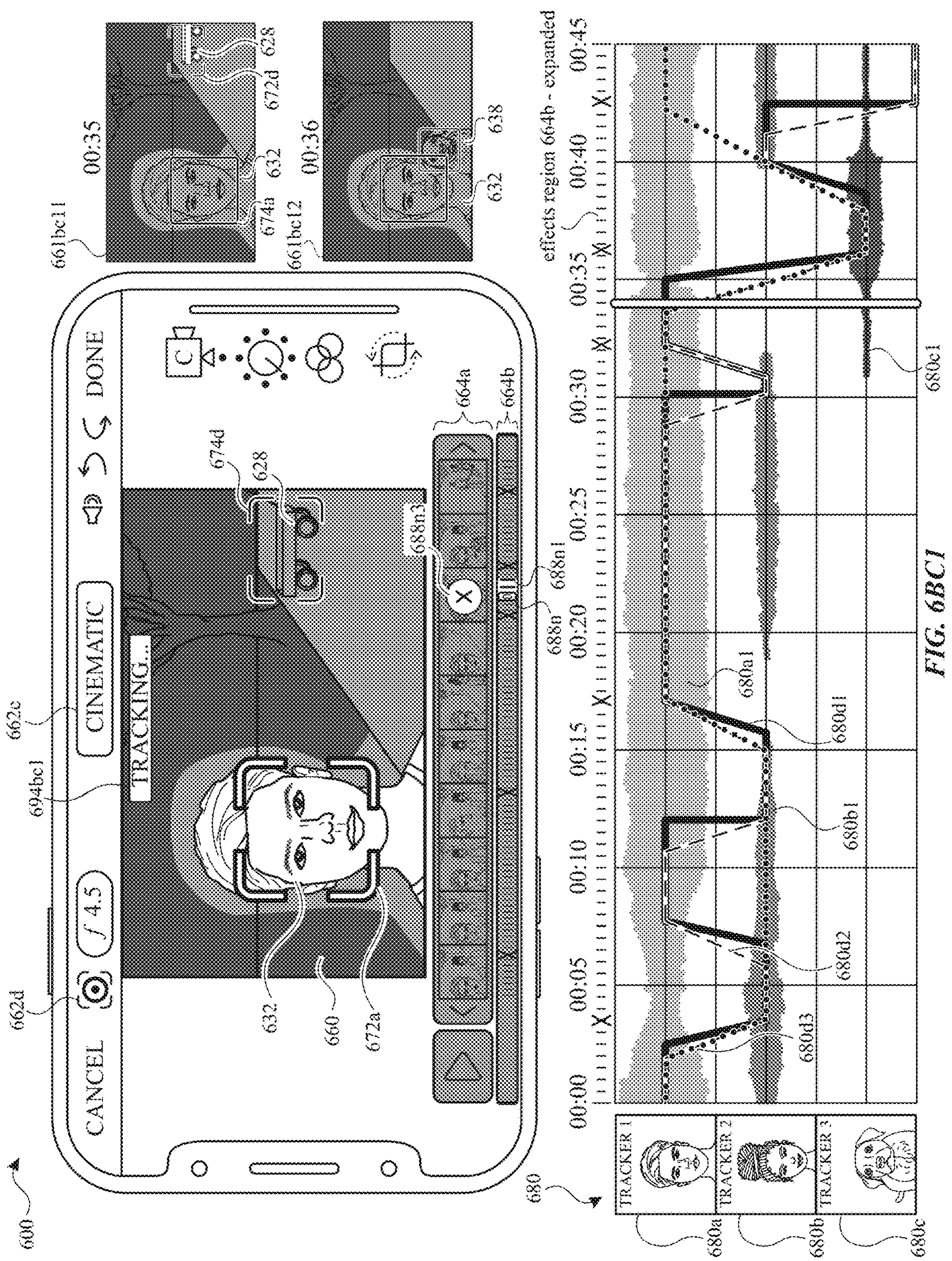

600
662d
694bc1
662c
CANCEL
f 4.5
CINEMATIC
TRACKING...
DONE
674d
628
688n3
664a
664b
688n1
688n
632
660
672a
661bc11
00:35
632
674b
672d
628
661bc12
00:36
632
638
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680a1
680d1
680b1
680d2
680d3
680c1
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c

FIG. 6BC1

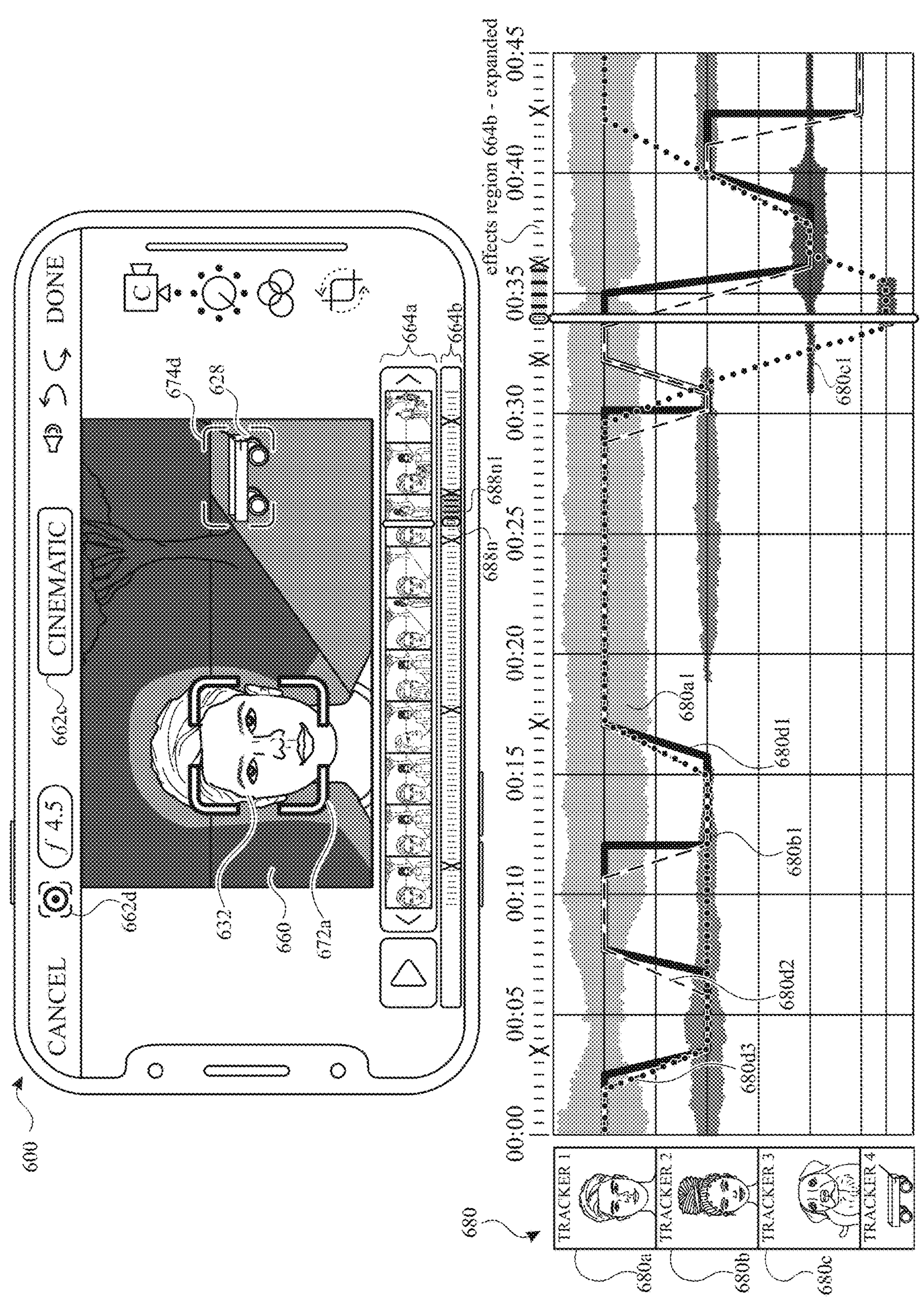

600
CANCEL
DONE
f 4.5
CINEMATIC
C
662d
662c
632
660
672a
674d
628
664a
664b
688n
688n1
680
TRACKER 1
TRACKER 2
TRACKER 3
TRACKER 4
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
effects region 664b - expanded
680a1
680b1
680c1
680d1
680d2
680d3

FIG. 6BC2

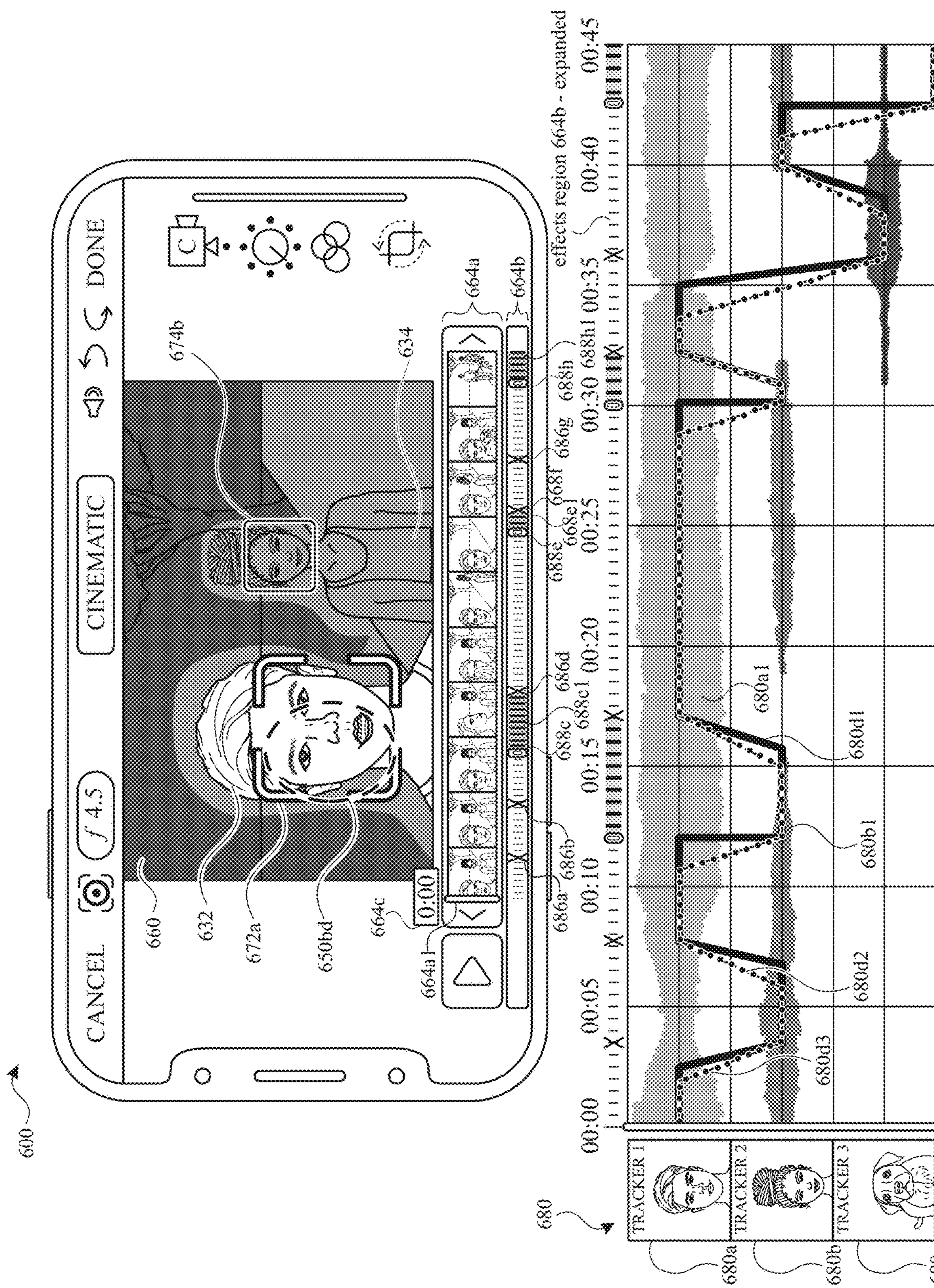

600
CANCEL
f 4.5
CINEMATIC
DONE
C
660
632
672a
650bd
664c
0:00
664a1
674b
634
664a
664b
686a
686b
688c
688c1
686d
688e
668e1
668f
686g
688h
688h1
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680d1
680d2
680d3

FIG. 6BD

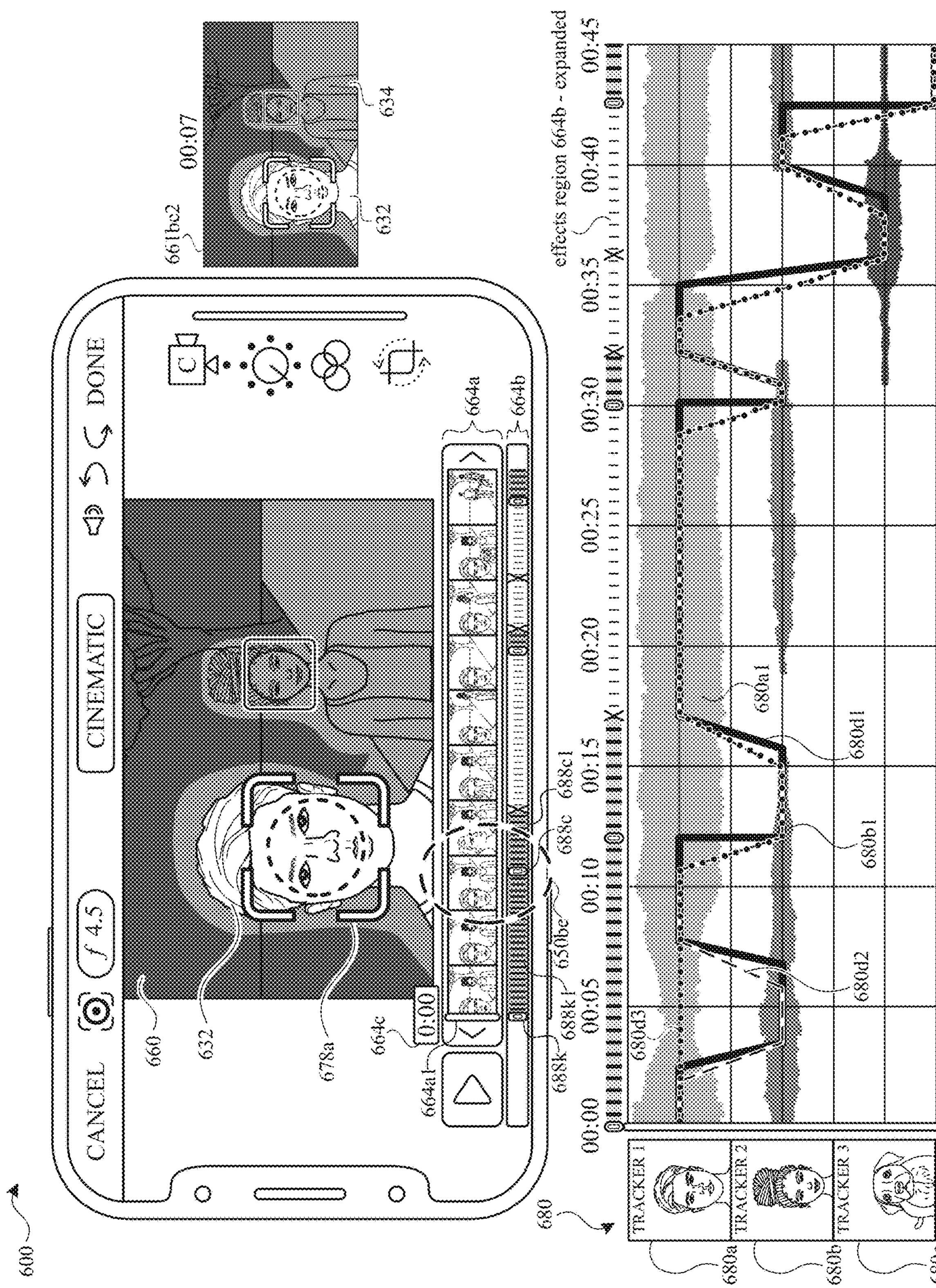

600
CANCEL
f 4.5
CINEMATIC
DONE
660
632
678a
664c
0:00
664a1
688k
688k1
650be
688c
688c1
664a
664b
661bc2
00:07
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
effects region 664b - expanded
680d3
680d2
680b1
680d1
680a1

FIG. 6BE

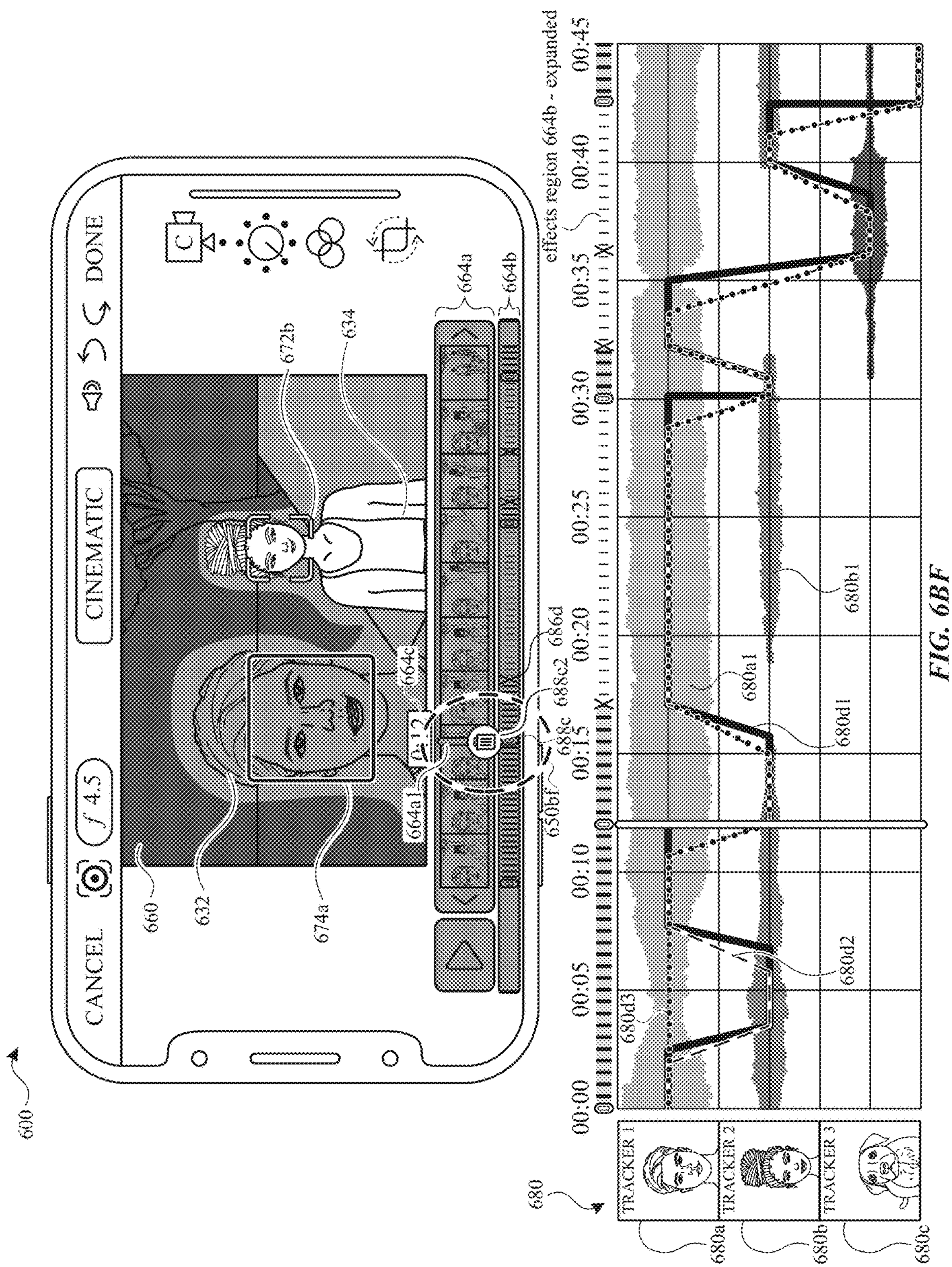

600
CANCEL
f 4.5
CINEMATIC
DONE
660
632
674a
672b
634
664a
664b
664c
664a1
650bf
688c
688c2
686d
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680d3
680d2
680d1
680a1
680b1

FIG. 6BF

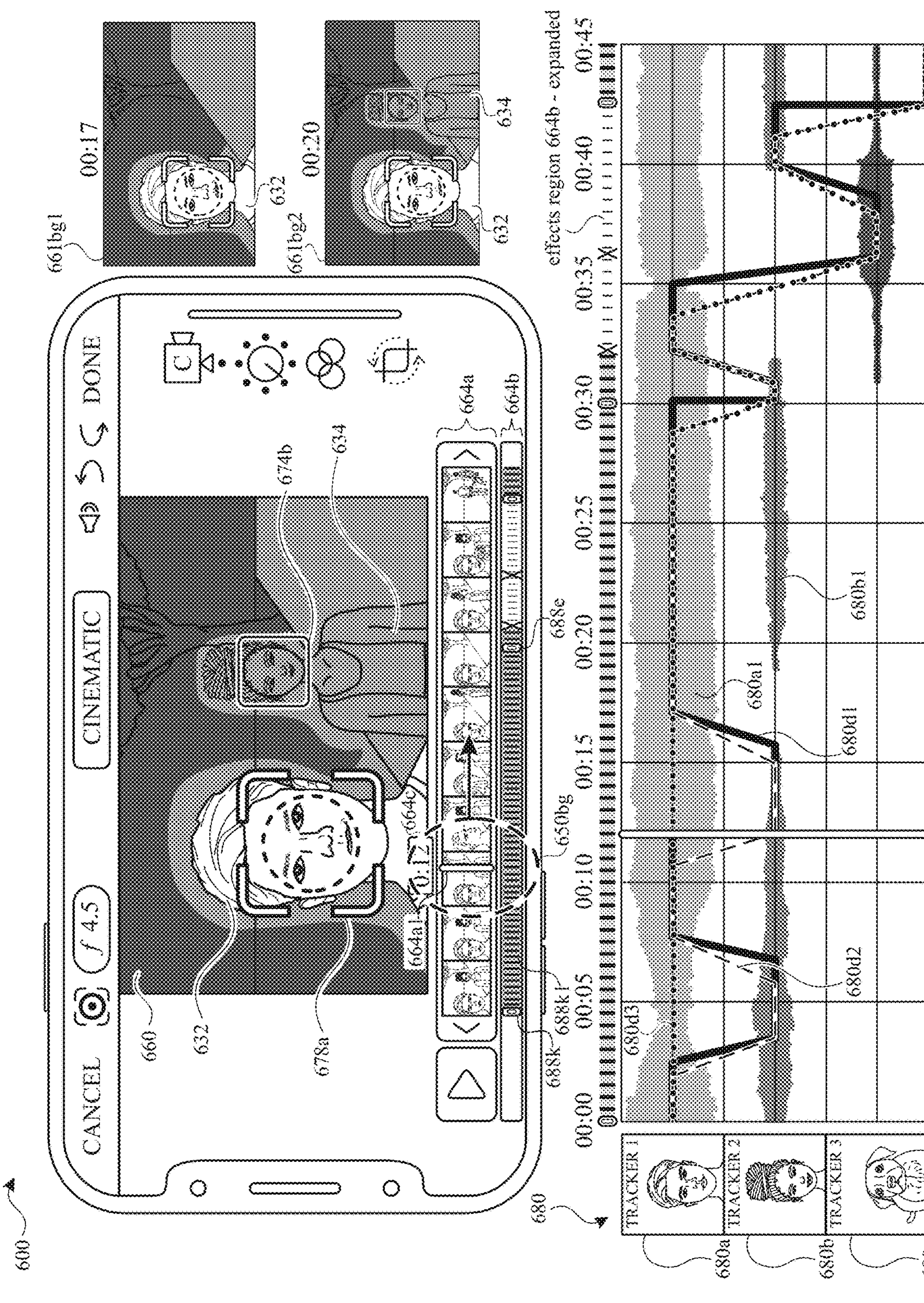

600
CANCEL
f 4.5
CINEMATIC
DONE
660
632
678a
674b
634
664a
664b
664a1
664c
650bg
688k
688k1
688e
661bg1
661bg2
00:17
00:20
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680d1
680d2
680d3
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45

FIG. 6BG

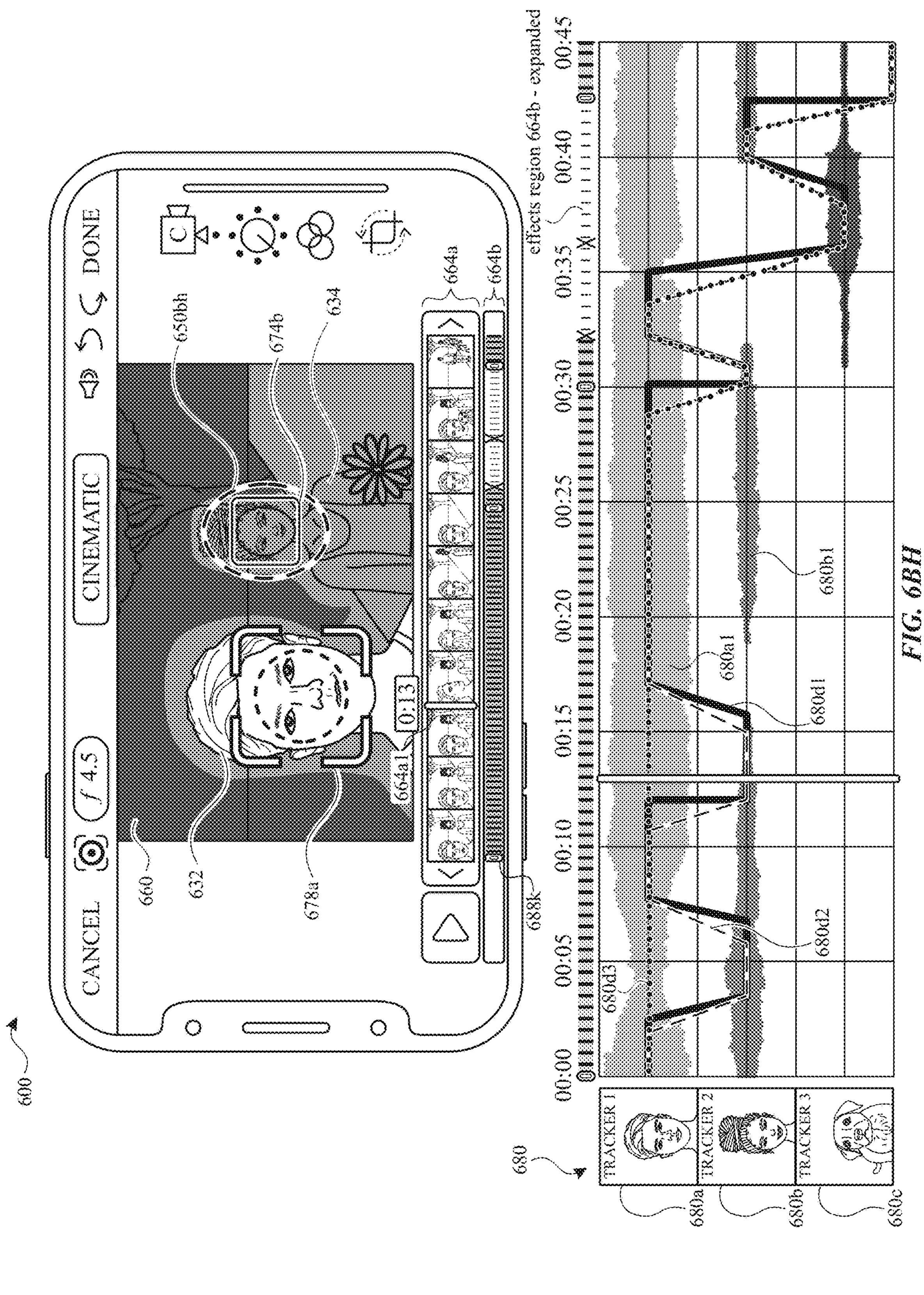

600
CANCEL
CINEMATIC
f 4.5
DONE
0:13
660
632
678a
664a1
650bh
674b
634
664a
664b
688k
effects region 664b - expanded
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
680a1
680b1
680d1
680d2
680d3

FIG. 6BH

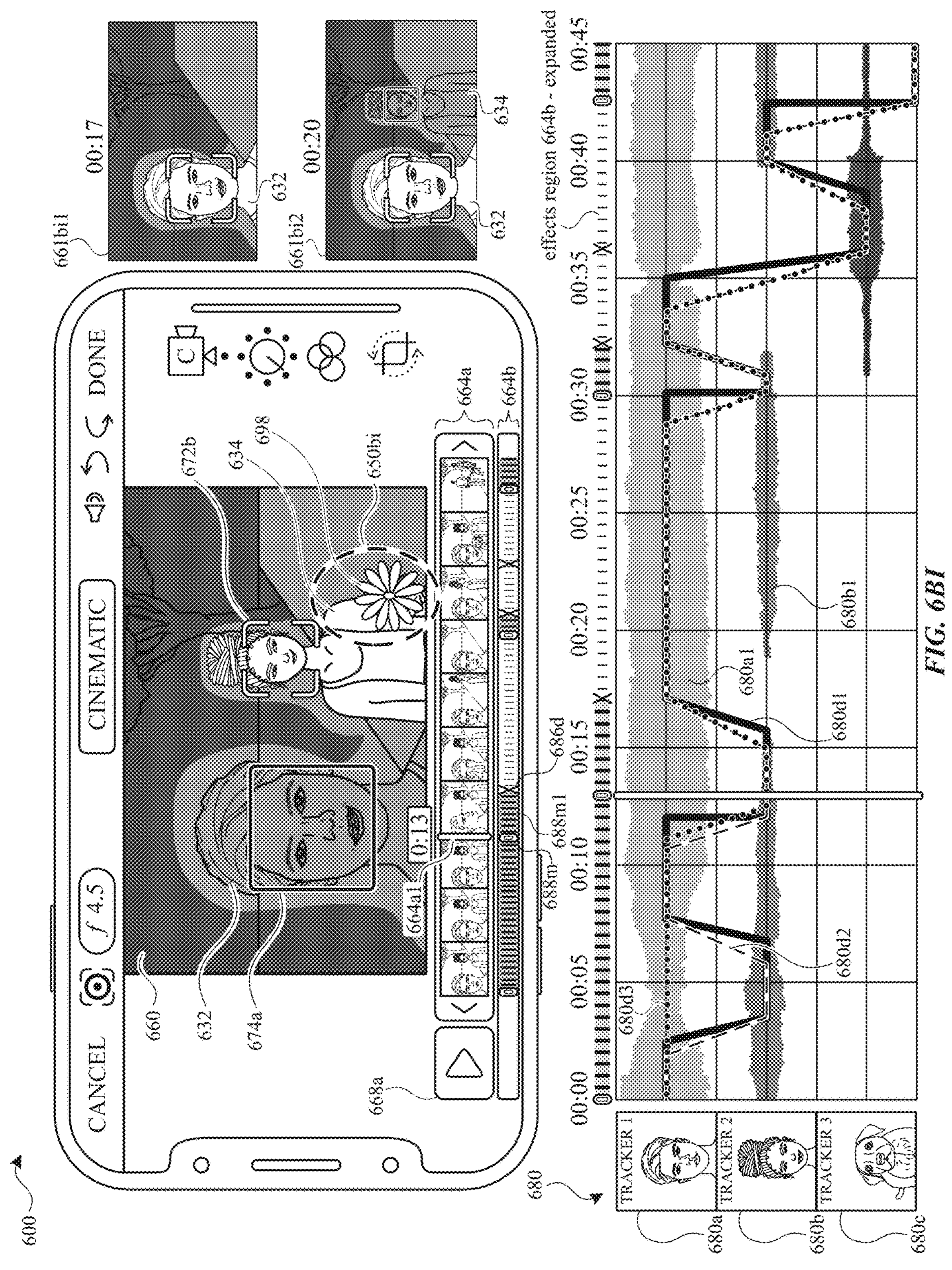

600
CANCEL
f 4.5
CINEMATIC
DONE
C
660
632
674a
668a
664a1
0:13
688m
688m1
686d
664a
664b
672b
634
698
650bi
661bi1
00:17
632
661bi2
00:20
632
634
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
effects region 664b - expanded
680d3
680d2
680d1
680a1
680b1

FIG. 6BI

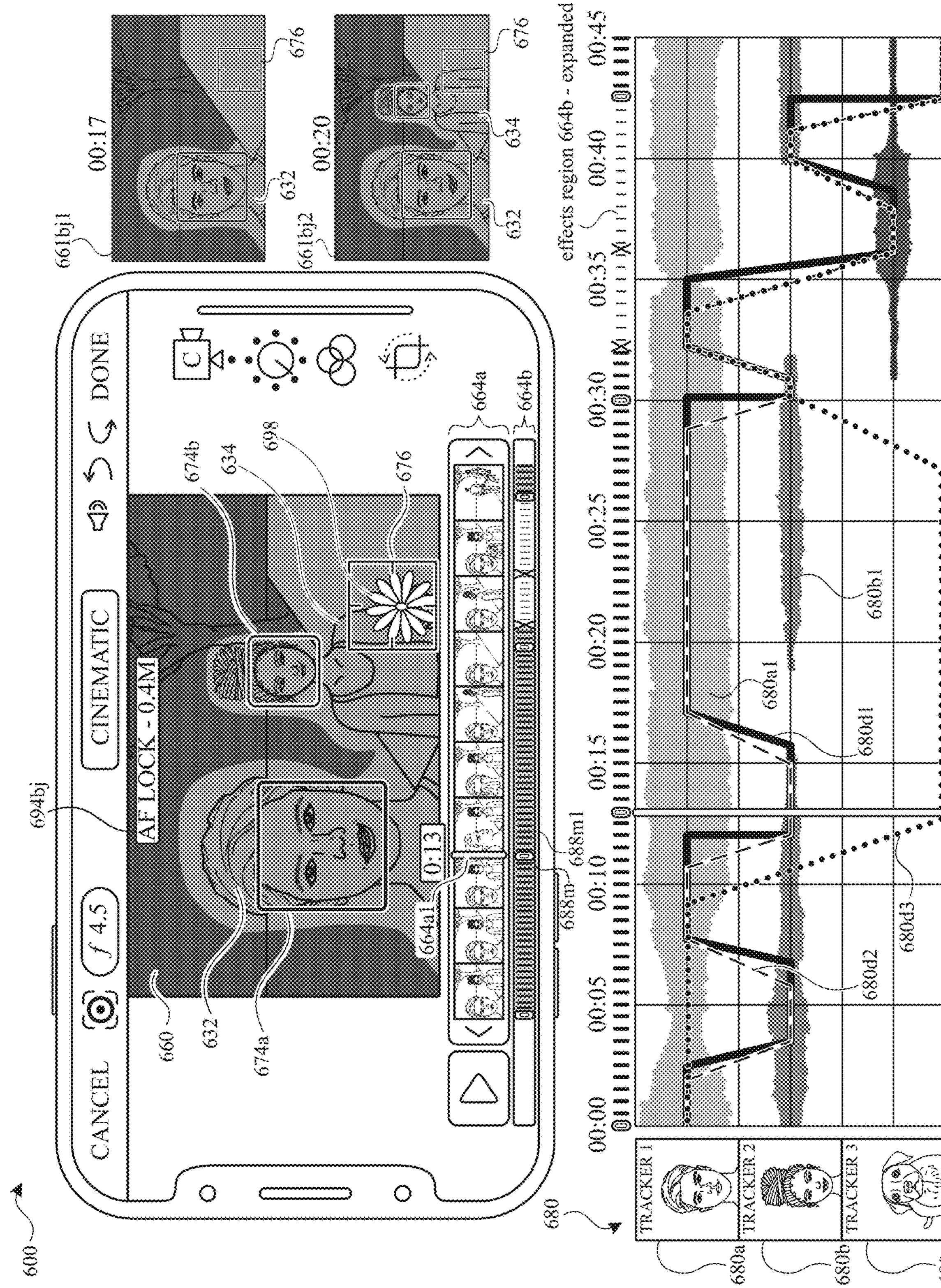

600
694bj
661bj1
661bj2
00:17
00:20
676
634
632
CANCEL
f 4.5
CINEMATIC
DONE
AF LOCK - 0.4M
660
674a
674b
698
0:13
664a
664b
664a1
688m
688m1
680
TRACKER 1
TRACKER 2
TRACKER 3
680a
680b
680c
00:00
00:05
00:10
00:15
00:20
00:25
00:30
00:35
00:40
00:45
effects region 664b - expanded
680a1
680b1
680d1
680d2
680d3

FIG. 6BJ

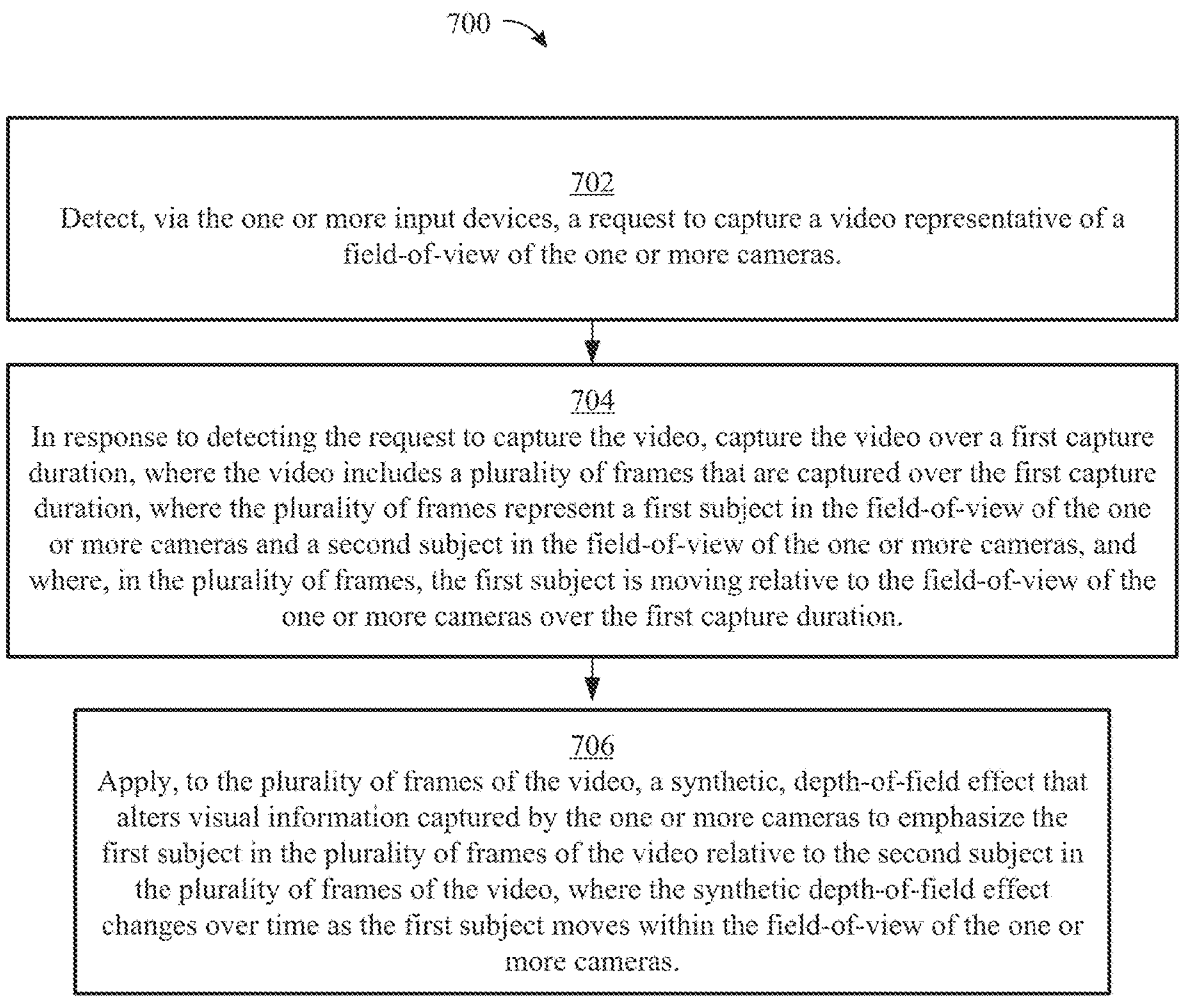

700
702
Detect, via the one or more input devices, a request to capture a video representative of a field-of-view of the one or more cameras.
704
In response to detecting the request to capture the video, capture the video over a first capture duration, where the video includes a plurality of frames that are captured over the first capture duration, where the plurality of frames represent a first subject in the field-of-view of the one or more cameras and a second subject in the field-of-view of the one or more cameras, and where, in the plurality of frames, the first subject is moving relative to the field-of-view of the one or more cameras over the first capture duration.
706
Apply, to the plurality of frames of the video, a synthetic, depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video, where the synthetic depth-of-field effect changes over time as the first subject moves within the field-of-view of the one or more cameras.

FIG. 7

800

802
Display, via a display generation component, a user interface that includes a representation of a video that includes a plurality of frames, the representation including a first subject and a second subject.

804
Display, via the display generation component, the user interface that includes a first user interface object indicating that the first subject is being emphasized by a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject.

806
While displaying the user interface that includes the representation of the video and the first user interface object, detect, via the one or more input devices, a gesture that corresponds to selection of the second subject in the representation of the video.

808
In response to detecting the gesture that corresponds to selection of the second subject in the representation of the video:

810
Change the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject.

812
Display a second user interface object indicating that the second subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject.

FIG. 8

900

902
Display, via the display generation component, a user interface that includes concurrently displaying:

904
A representation of a video having a first duration, wherein the video includes a plurality of changes in subject emphasis in the video, wherein a change in subject emphasis in the video includes a change in appearance of visual information captured by one or more cameras to emphasize one subject relative to one or more elements in the video, wherein the plurality of changes include an automatic change in subject emphasis at a first time during the first duration and a user-specified change in subject emphasis at a second time during the first duration that is different from the first time.

906
A video navigation user interface element for navigating through the video that includes a representation of the first time and a representation of the second time, where: the representation of the second time is visually distinguished from other times in the first duration of the video that do not correspond to changes in subject emphasis; and the representation of the first time is visually distinguished from the representation of the second time.

FIG. 9

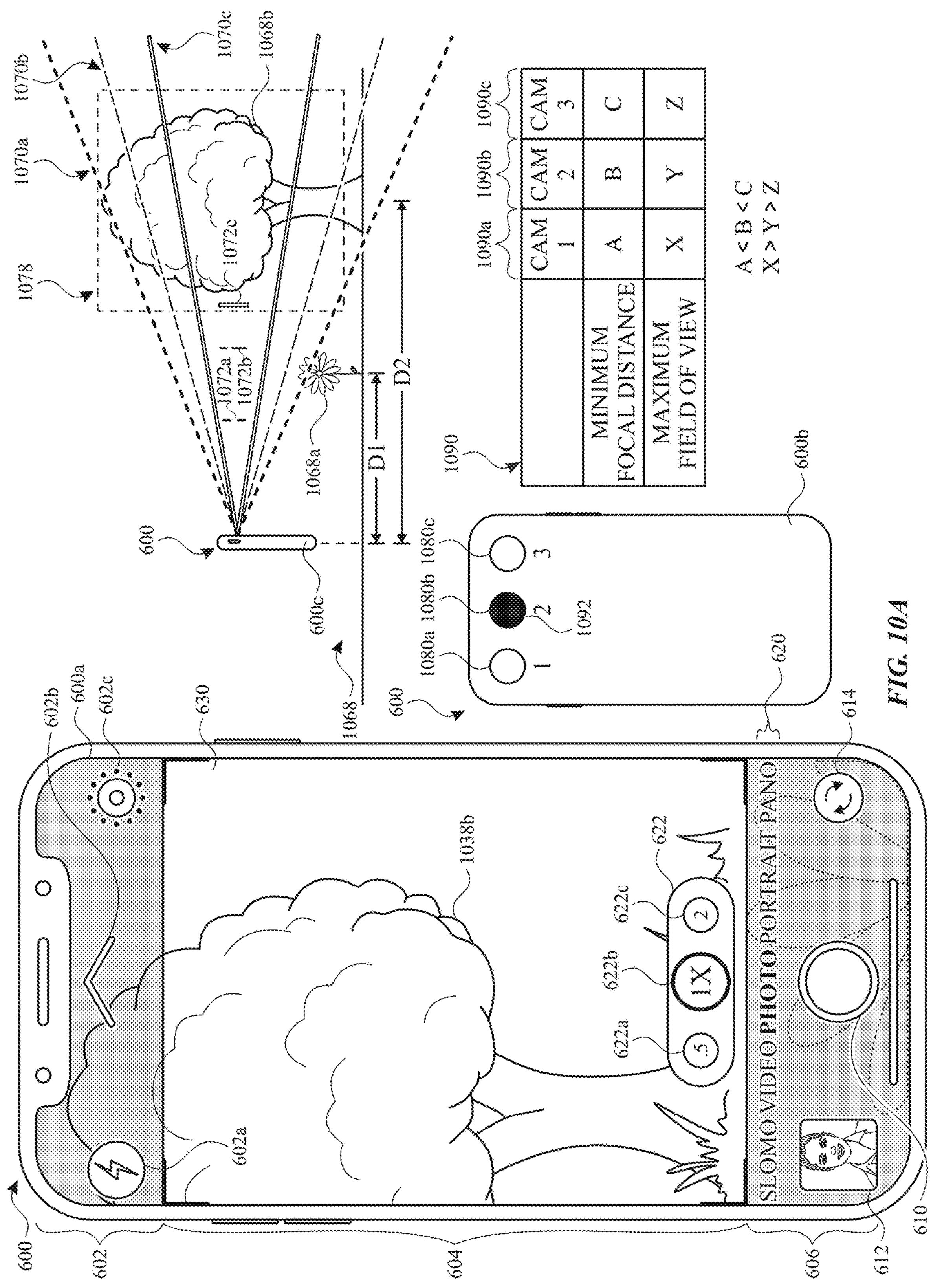

1070b
1070a
1078
1070c
1068b
1072c
1072a
1072b
1068a
D1
D2
600
600c
1068
1080a 1080b 1080c
1
2
3
1092
600b
620
1090
1090a
1090b
1090c
CAM 1
CAM 2
CAM 3
MINIMUM FOCAL DISTANCE
A
B
C
MAXIMUM FIELD OF VIEW
X
Y
Z
A < B < C
X > Y > Z
600
602b
600a
602c
630
1038b
622
622c
622b
622a
.5
1X
2
602a
SLOMO VIDEO PHOTO PORTRAIT PANO
614
610
612
606
604
602

FIG. 10A

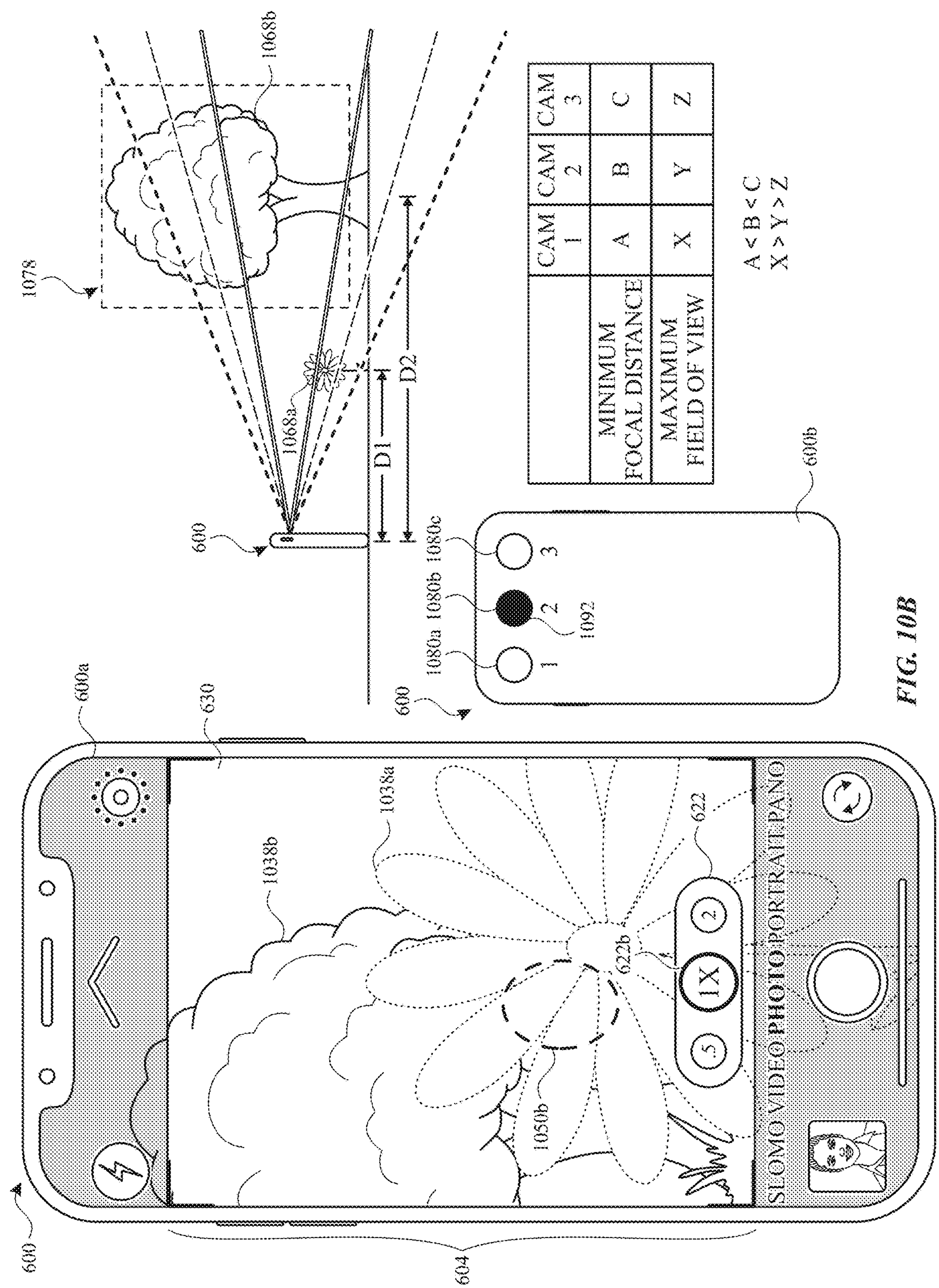

1078
1068b
600
1068a
D1
D2
CAM 1
CAM 2
CAM 3
MINIMUM FOCAL DISTANCE
A
B
C
MAXIMUM FIELD OF VIEW
X
Y
Z
A < B < C
X > Y > Z
1080a
1080b
1080c
1
2
3
1092
600b
600
600a
630
1038a
1038b
622
622b
1X
2
.5
1050b
SLOMO VIDEO PHOTO PORTRAIT PANO
600
604

FIG. 10B

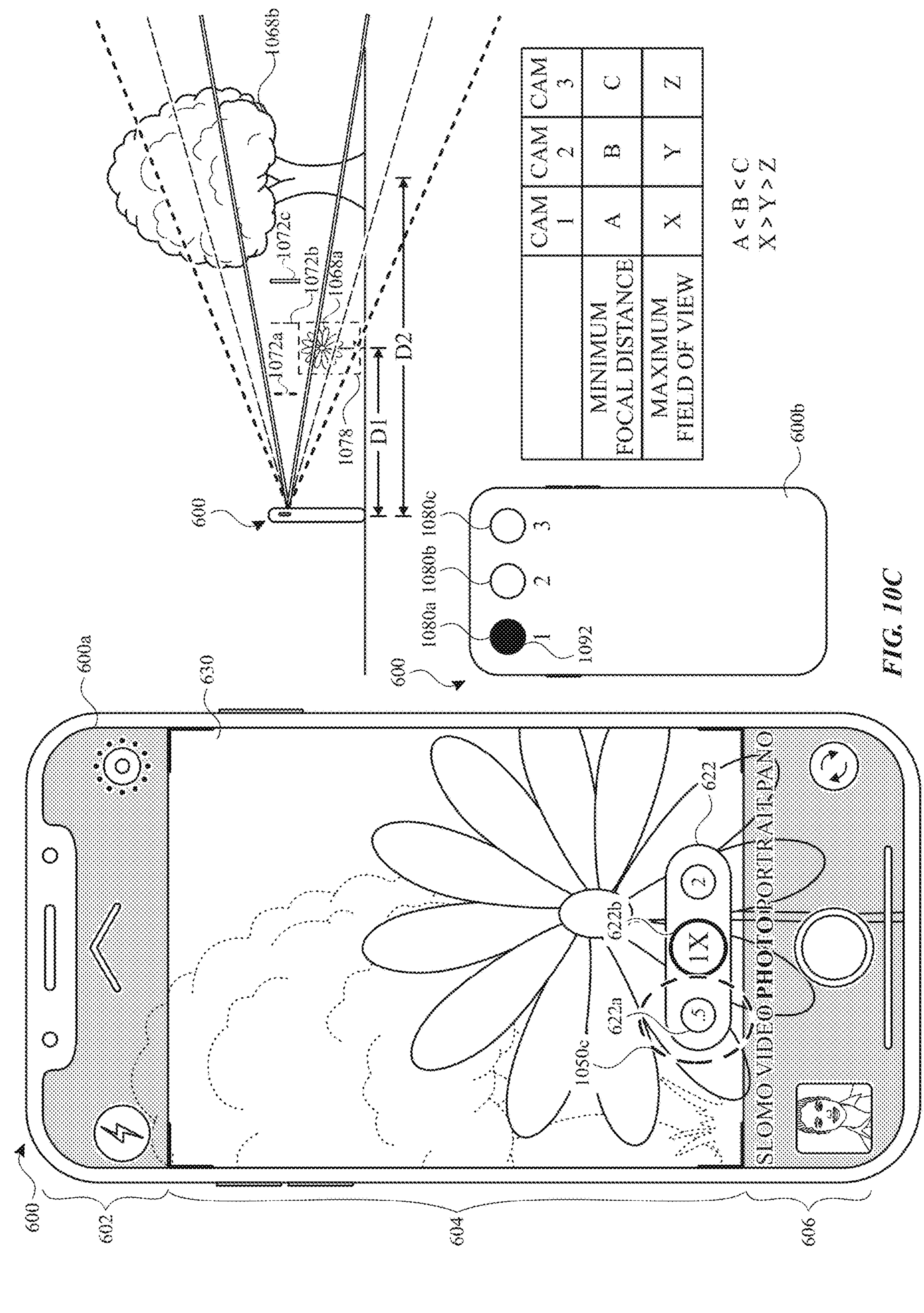
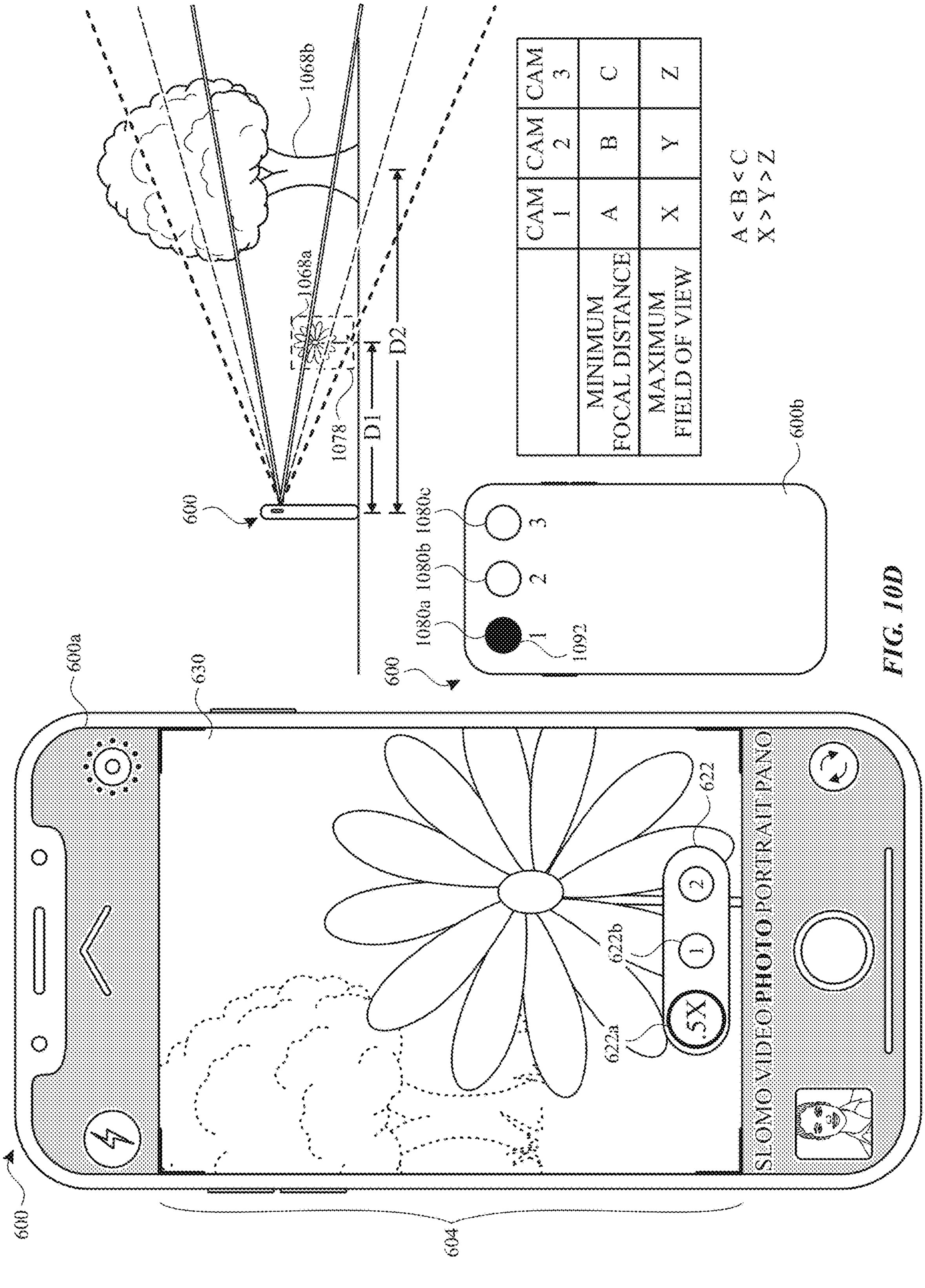

600
602
604
606
600a
630
622
622a
622b
1050c
.5
1X
2
SLOMO VIDEO PHOTO PORTRAIT PANO
600
1080a 1080b 1080c
1 2 3
1092
600b
600
1068b
1072c
1072b
1068a
1072a
1078
D1
D2
CAM 1
CAM 2
CAM 3
MINIMUM FOCAL DISTANCE
A
B
C
MAXIMUM FIELD OF VIEW
X
Y
Z
A < B < C
X > Y > Z

FIG. 10C



	CAM 1	CAM 2	CAM 3
MINIMUM FOCAL DISTANCE	A	B	C
MAXIMUM FIELD OF VIEW	X	Y	Z

FIG. 10D

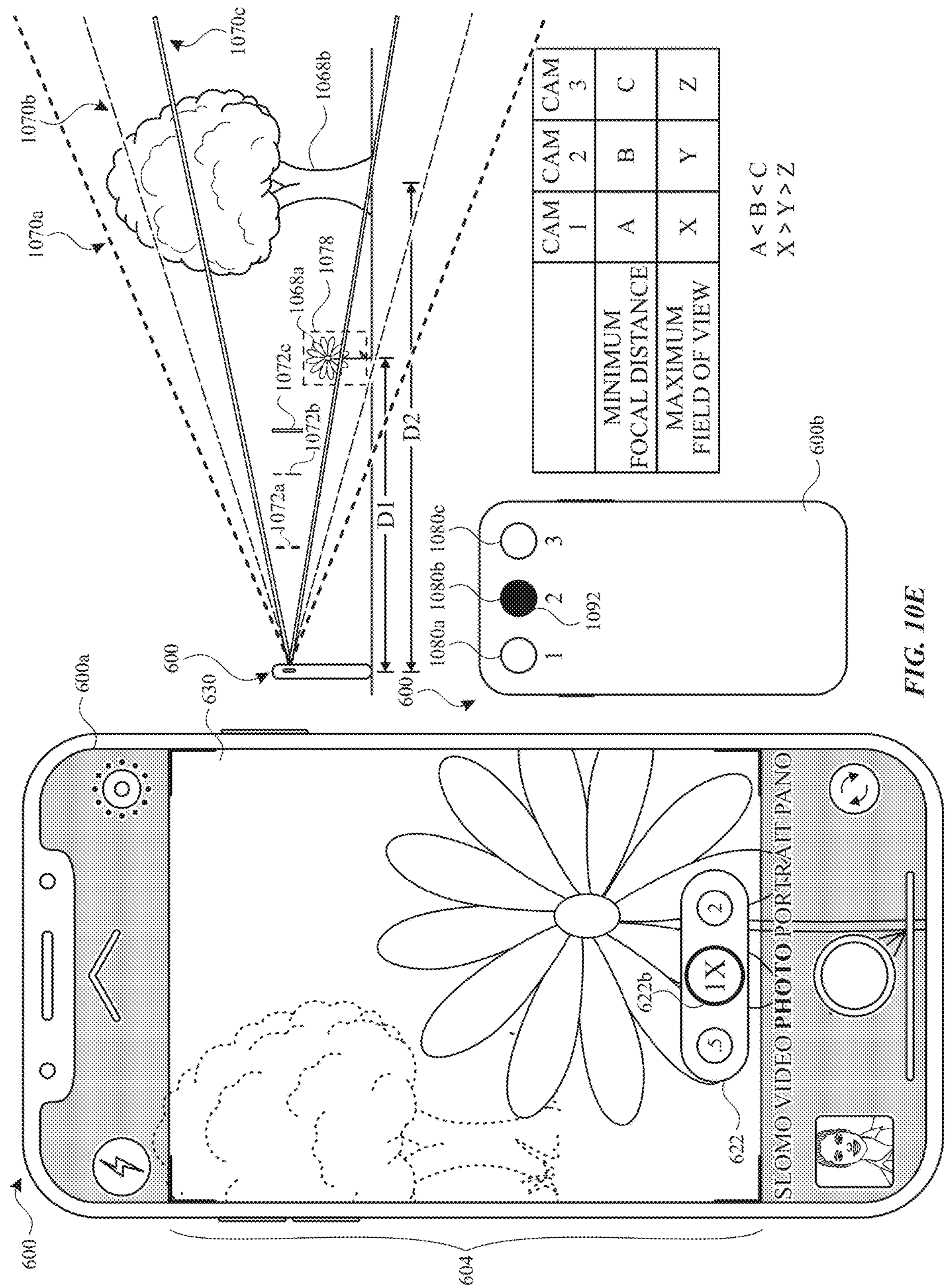

1070a
1070b
1070c
1068b
1068a
1078
1072a
1072b
1072c
D1
D2
600
600a
630
600b
1080a
1080b
1080c
1092
1
2
3
CAM 1
CAM 2
CAM 3
MINIMUM FOCAL DISTANCE
A
B
C
MAXIMUM FIELD OF VIEW
X
Y
Z
A < B < C
X > Y > Z
.5
1X
2
SLOMO VIDEO PHOTO PORTRAIT PANO
622
622b
604

FIG. 10E

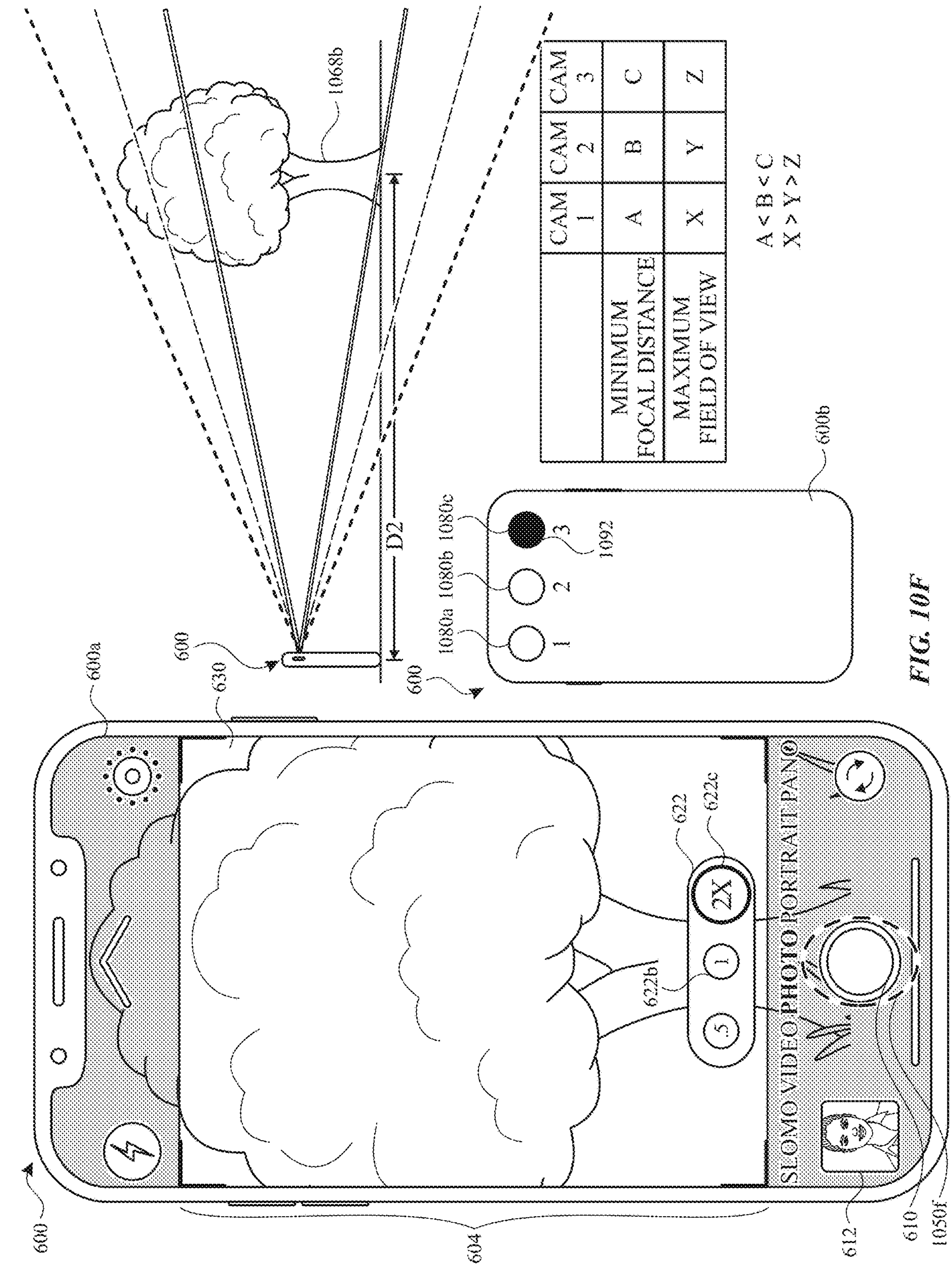

1068b
D2
600
600a
630
600
1080a 1080b 1080c
1 2 3
1092
600b
CAM 1 CAM 2 CAM 3
MINIMUM FOCAL DISTANCE A B C
MAXIMUM FIELD OF VIEW X Y Z
A < B < C
X > Y > Z
622
622c
2X
1
.5
622b
SLOMO VIDEO PHOTO PORTRAIT PANO
600
604
612
610
1050f

FIG. 10F

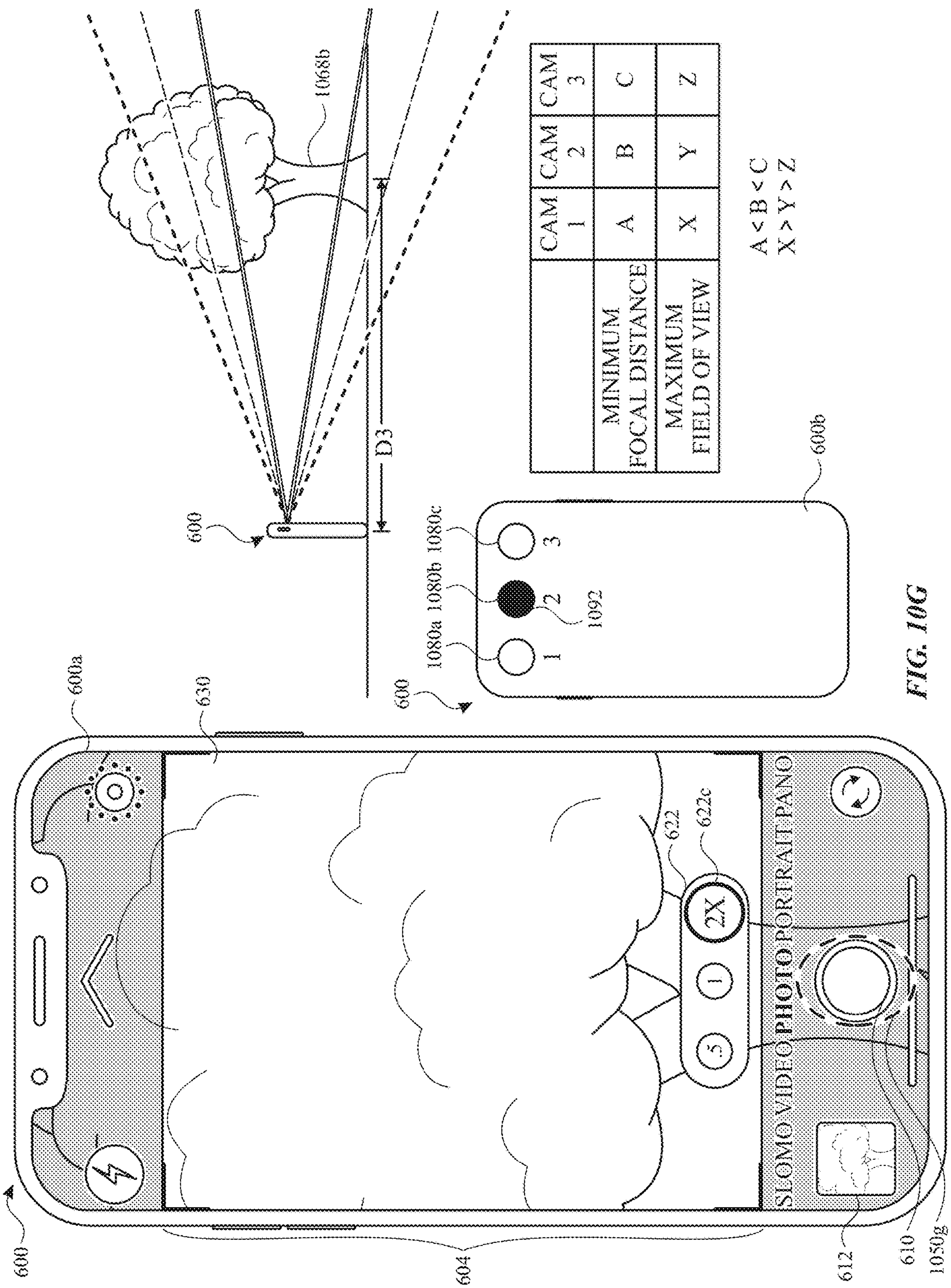

600
1068b
D3
600
1080a 1080b 1080c
1
2
3
1092
600
600b
CAM 1
CAM 2
CAM 3
MINIMUM FOCAL DISTANCE
A
B
C
MAXIMUM FIELD OF VIEW
X
Y
Z
A < B < C
X > Y > Z
600a
630
622
622c
2X
1
.5
SLOMO VIDEO PHOTO PORTRAIT PANO
600
604
612
610
1050g

FIG. 10G

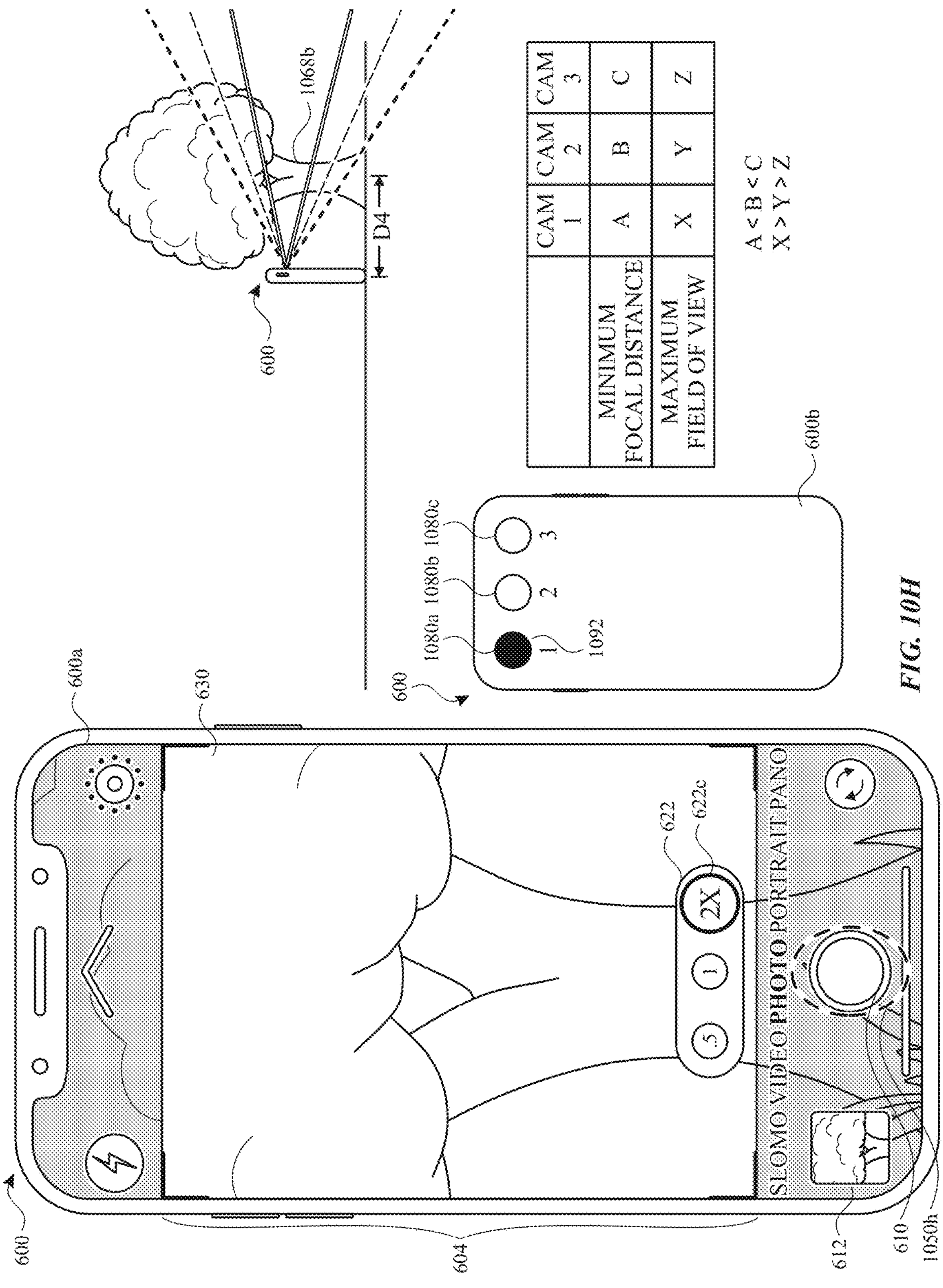

600
1068b
D4
CAM 1
CAM 2
CAM 3
MINIMUM FOCAL DISTANCE
A
B
C
MAXIMUM FIELD OF VIEW
X
Y
Z
A < B < C
X > Y > Z
600b
1080a
1080b
1080c
1
2
3
1092
600
600a
630
622
622c
.5
1
2X
SLOMO VIDEO PHOTO PORTRAIT PANO
604
612
610
1050h

FIG. 10H

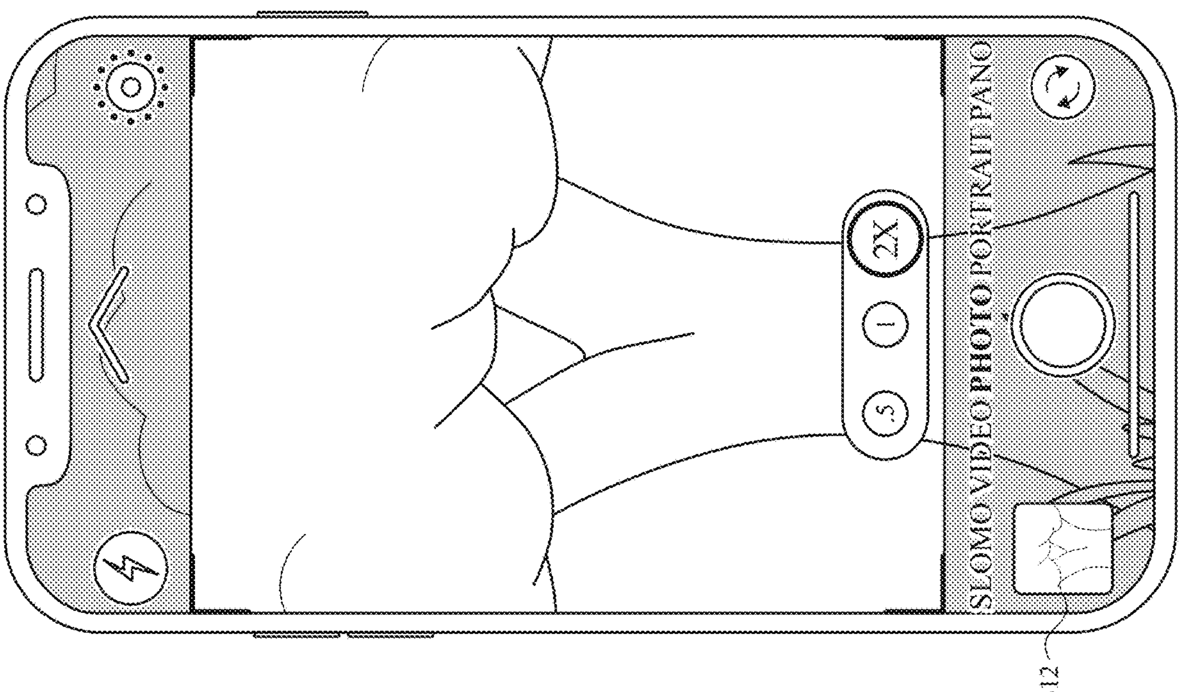


FIG. 10I

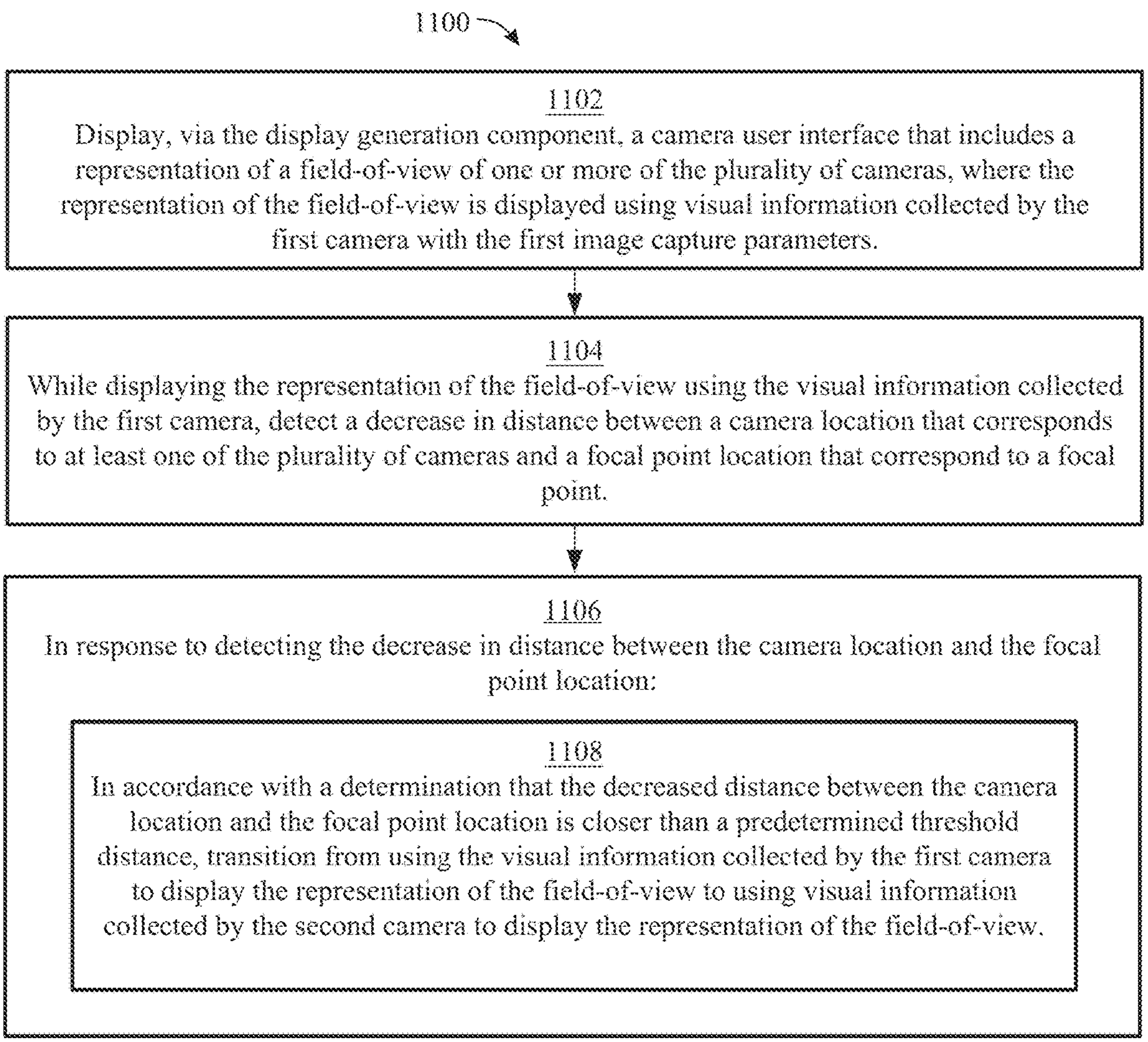

1100
1102
Display, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, where the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters.
1104
While displaying the representation of the field-of-view using the visual information collected by the first camera, detect a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point.
1106
In response to detecting the decrease in distance between the camera location and the focal point location:
1108
In accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transition from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

FIG. 11

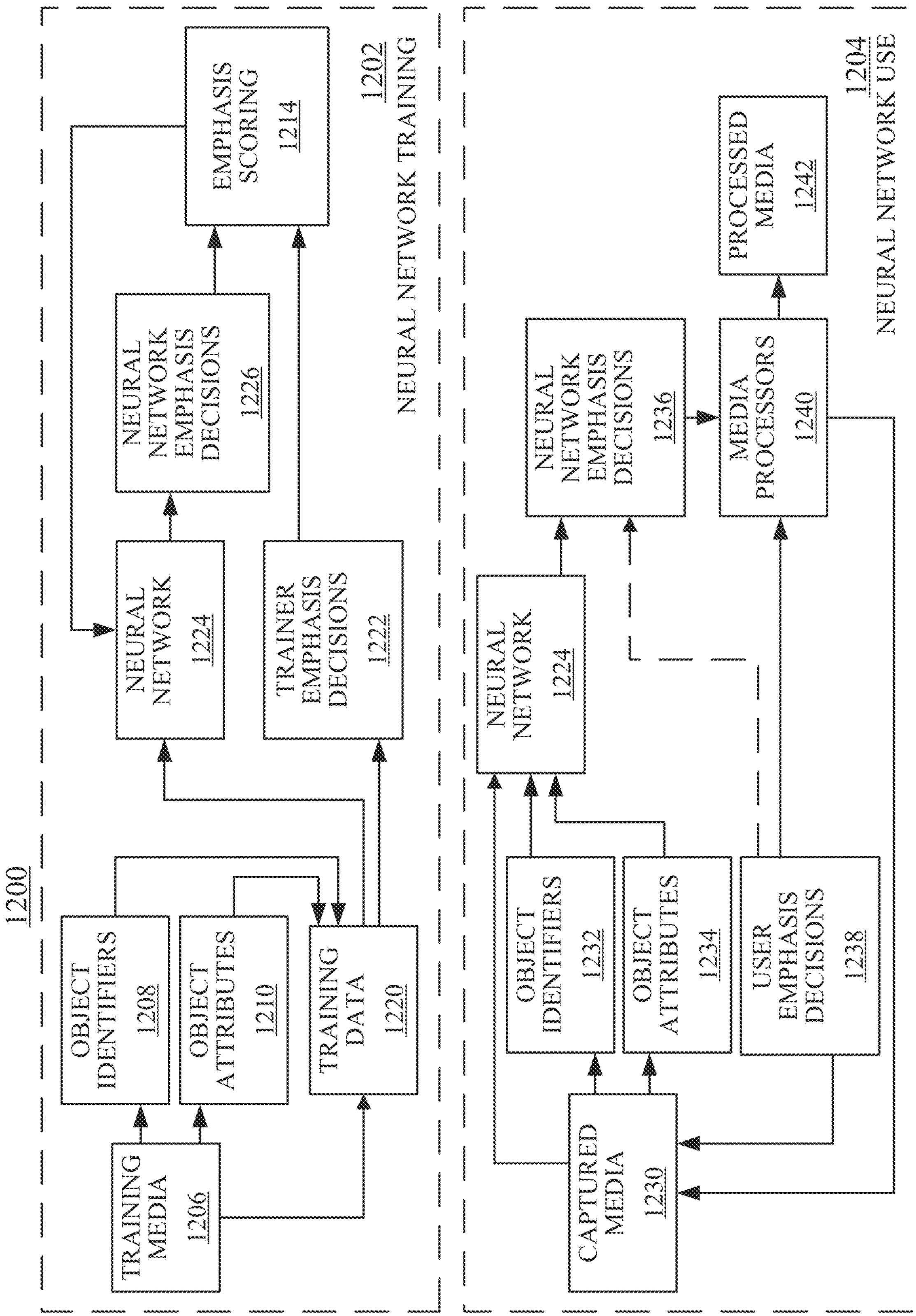

1200
TRAINING MEDIA 1206
OBJECT IDENTIFIERS 1208
OBJECT ATTRIBUTES 1210
TRAINING DATA 1220
NEURAL NETWORK 1224
TRAINER EMPHASIS DECISIONS 1222
NEURAL NETWORK EMPHASIS DECISIONS 1226
EMPHASIS SCORING 1214
1202
NEURAL NETWORK TRAINING
CAPTURED MEDIA 1230
OBJECT IDENTIFIERS 1232
OBJECT ATTRIBUTES 1234
USER EMPHASIS DECISIONS 1238
NEURAL NETWORK 1224
NEURAL NETWORK EMPHASIS DECISIONS 1236
MEDIA PROCESSORS 1240
PROCESSED MEDIA 1242
1204
NEURAL NETWORK USE

FIG. 12

1300

1302
Play, via the display generation component, a portion of a video that includes a first subject emphasis change that occurs at a first time, where the first subject emphasis change includes a change in appearance of visual information captured by one or more cameras to emphasize a respective subject relative to one or more elements in the video during a first period of time that follows the first time

1304
After playing the portion of the video that includes the first subject emphasis change that occurs at the first time, detect a request to change subject emphasis at a second time in the video that is different from the first time

1306
In response to detecting the request to change subject emphasis at the second time in the video:

1308
Change the subject emphasis in the video during a second period of time that follows the second time

1310
Change the first subject emphasis change that occurs at the first time including changing the emphasis of the respective subject relative to the one or more elements in the video during the first period of time that follows the first time

FIG. 13

USER INTERFACES FOR ALTERING VISUAL MEDIA

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. patent application Ser. No. 17/483,684, entitled "USER INTERFACES FOR ALTERING VISUAL MEDIA," filed on Sep. 23, 2021, which claims priority to U.S. Provisional patent application Ser. No. 63/182,751, entitled "USER INTERFACES FOR ALTERING VISUAL MEDIA," filed on Apr. 30, 2021, U.S. Provisional patent application Ser. No. 63/197,460, entitled "USER INTERFACES FOR ALTERING VISUAL MEDIA," filed on Jun. 6, 2021, U.S. Provisional Patent Application Ser. No. 63/243,724, entitled "USER INTERFACES FOR ALTERING VISUAL MEDIA," filed on Sep. 13, 2021, and U.S. Provisional patent application Ser. No. 63/244,213, entitled "USER INTERFACES FOR ALTERING VISUAL MEDIA," filed Sep. 14, 2021. The contents of these applications are hereby incorporated by reference in their entireties.

FIELD

The present disclosure relates generally to computer user interfaces and related techniques, and more specifically to user interfaces and techniques for altering visual media.

BACKGROUND

Users of smartphones and other personal electronic devices frequently capture, store, and edit media for safe-keeping memories and sharing with friends. Some existing techniques allowed users to capture media, such as images, audio, and/or videos. Users can manage such media by, for example, capturing, storing, and editing the media.

BRIEF SUMMARY

Some techniques for altering visual information using computer systems and other electronic devices, however, are generally cumbersome and inefficient. For example, some existing techniques use a complex and time-consuming user interface, which may include multiple key presses or keystrokes. Existing techniques require more time than necessary, wasting user time and device energy. This latter consideration is particularly important in battery-operated devices.

Accordingly, the present technique provides electronic devices with faster, more efficient methods and interfaces for altering visual content, including applying a synthetic depth-of-field effect to the visual content to emphasize portions of media. Such methods and interfaces optionally complement or replace other methods for altering visual content. Such methods and interfaces reduce the cognitive burden on a user and produce a more efficient human-machine interface. For battery-operated computing devices, such methods and interfaces conserve power and increase the time between battery charges.

In accordance with some embodiments, a method performed at a computer system that is in communication with one or more cameras and one or more input devices is described. The method comprises: detecting, via the one or more input devices, a request to capture a video representative of a field-of-view of the one or more cameras; in response to detecting the request to capture the video: capturing the video over a first capture duration, where the video includes a plurality of frames that are captured over the first capture duration, where the plurality of frames represent a first subject in the field-of-view of the one or more cameras and a second subject in the field-of-view of the one or more cameras, and where, in the plurality of frames, the first subject is moving relative to the field-of-view of the one or more cameras over the first capture duration; applying, to the plurality of frames of the video, a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video, where the synthetic depth-of-field effect changes over time as the first subject moves within the field-of-view of the one or more cameras.

In accordance with some embodiments, a non-transitory computer-readable storage medium is described. The non-transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors of a computer system that is in communication with one or more cameras and one or more input devices, the one or more programs including instructions for: detecting, via the one or more input devices, a request to capture a video representative of a field-of-view of the one or more cameras; in response to detecting the request to capture the video: capturing the video over a first capture duration, where the video includes a plurality of frames that are captured over the first capture duration, where the plurality of frames represent a first subject in the field-of-view of the one or more cameras and a second subject in the field-of-view of the one or more cameras, and where, in the plurality of frames, the first subject is moving relative to the field-of-view of the one or more cameras over the first capture duration; applying, to the plurality of frames of the video, a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video, where the synthetic depth-of-field effect changes over time as the first subject moves within the field-of-view of the one or more cameras.

In accordance with some embodiments, a transitory computer-readable storage medium is described. The transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors that is in communication with one or more cameras and one or more input devices, the one or more programs including instructions for detecting, via the one or more input devices, a request to capture a video representative of a field-of-view of the one or more cameras; in response to detecting the request to capture the video: capturing the video over a first capture duration, where the video includes a plurality of frames that are captured over the first capture duration, where the plurality of frames represent a first subject in the field-of-view of the one or more cameras and a second subject in the field-of-view of the one or more cameras, and where, in the plurality of frames, the first subject is moving relative to the field-of-view of the one or more cameras over the first capture duration; applying, to the plurality of frames of the video, a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video, where the synthetic depth-of-field effect changes over time as the first subject moves within the field-of-view of the one or more cameras.

In accordance with some embodiments, a computer system is described. The computer system is configured to communicate with one or more cameras and one or more input devices. The computer system comprises: one or more processors; and memory storing one or more programs configured to be executed by the one or more processors, the one or more programs including instructions for: detecting, via the one or more input devices, a request to capture a video representative of a field-of-view of the one or more cameras; in response to detecting the request to capture the video: capturing the video over a first capture duration, where the video includes a plurality of frames that are captured over the first capture duration, where the plurality of frames represent a first subject in the field-of-view of the one or more cameras and a second subject in the field-of-view of the one or more cameras, and where, in the plurality of frames, the first subject is moving relative to the field-of-view of the one or more cameras over the first capture duration; applying, to the plurality of frames of the video, a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video, where the synthetic depth-of-field effect changes over time as the first subject moves within the field-of-view of the one or more cameras.

In accordance with some embodiments, a computer system is described. The computer system is configured to communicate with one or more cameras and one or more input devices. The computer system comprises: means for detecting, via the one or more input devices, a request to capture a video representative of a field-of-view of the one or more cameras; means, responsive to detecting the request to capture the video, for: capturing the video over a first capture duration, where the video includes a plurality of frames that are captured over the first capture duration, where the plurality of frames represent a first subject in the field-of-view of the one or more cameras and a second subject in the field-of-view of the one or more cameras, and where, in the plurality of frames, the first subject is moving relative to the field-of-view of the one or more cameras over the first capture duration; and means for applying, to the plurality of frames of the video, a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video, where the synthetic depth-of-field effect changes over time as the first subject moves within the field-of-view of the one or more cameras.

In accordance with some embodiments, a computer program product is described. The computer program product comprises: one or more programs configured to be executed by one or more processors of a computer system that is in communication with one or more cameras and one or more input devices, the one or more programs including instructions for: detecting, via the one or more input devices, a request to capture a video representative of a field-of-view of the one or more cameras; in response to detecting the request to capture the video: capturing the video over a first capture duration, where the video includes a plurality of frames that are captured over the first capture duration, where the plurality of frames represent a first subject in the field-of-view of the one or more cameras and a second subject in the field-of-view of the one or more cameras, and where, in the plurality of frames, the first subject is moving relative to the field-of-view of the one or more cameras over the first capture duration; applying, to the plurality of frames of the video, a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video, where the synthetic depth-of-field effect changes over time as the first subject moves within the field-of-view of the one or more cameras.

In accordance with some embodiments, a method performed at a computer system that is in communication with one or more cameras, a display generation component, and one or more input devices is described. The method comprises: displaying, via the display generation component, a user interface that includes: a representation of a video that includes a plurality of frames, the representation including a first subject and a second subject; and a first user interface object indicating that the first subject is being emphasized by a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject; while displaying the user interface that includes the representation of the video and the first user interface object, detecting, via the one or more input devices, a gesture that corresponds to selection of the second subject in the representation of the video; and in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video: changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject, and displaying a second user interface object indicating that the second subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject.

In accordance with some embodiments, a non-transitory computer-readable storage medium is described. The non-transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors of a computer system that is in communication with one or more cameras, a display generation component, and one or more input devices, the one or more programs including instructions for: displaying, via the display generation component, a user interface that includes: a representation of a video that includes a plurality of frames, the representation including a first subject and a second subject; and a first user interface object indicating that the first subject is being emphasized by a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject; while displaying the user interface that includes the representation of the video and the first user interface object, detecting, via the one or more input devices, a gesture that corresponds to selection of the second subject in the representation of the video; and in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video: changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject, and displaying a second user interface object indicating that the second subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject.

In accordance with some embodiments, a transitory computer-readable storage medium is described. The transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors of a computer system that is in communication with one or more cameras, a display generation component, and one or more input devices, the one or more programs including instructions for: displaying, via the display generation component, a user interface that includes: a representation of a video that includes a plurality of frames, the representation including a first subject and a second subject; and a first user interface object indicating that the first subject is being emphasized by a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject; while displaying the user interface that includes the representation of the video and the first user interface object, detecting, via the one or more input devices, a gesture that corresponds to selection of the second subject in the representation of the video; and in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video: changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject, and displaying a second user interface object indicating that the second subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject.

In accordance with some embodiments, a computer system is described. The computer system is configured to communicate with one or more cameras; a display generation component; and one or more input devices. The computer system comprises: one or more processors; and memory storing one or more programs configured to be executed by the one or more processors, the one or more programs including instructions for: displaying, via the display generation component, a user interface that includes: a representation of a video that includes a plurality of frames, the representation including a first subject and a second subject; and a first user interface object indicating that the first subject is being emphasized by a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject; while displaying the user interface that includes the representation of the video and the first user interface object, detecting, via the one or more input devices, a gesture that corresponds to selection of the second subject in the representation of the video; and in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video: changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject, and displaying a second user interface object indicating that the second subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject.

In accordance with some embodiments, a computer system is described. The computer system is configured to communicate with one or more cameras; a display generation component; and one or more input devices. The computer system comprises: means for displaying, via the display generation component, a user interface that includes: a representation of a video that includes a plurality of frames, the representation including a first subject and a second subject; and a first user interface object indicating that the first subject is being emphasized by a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject; while displaying the user interface that includes the representation of the video and the first user interface object, for detecting, via the one or more input devices, a gesture that corresponds to selection of the second subject in the representation of the video; and means, responsive to detecting the gesture that corresponds to selection of the second subject in the representation of the video, for: changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject; and displaying a second user interface object indicating that the second subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject.

In accordance with some embodiments, a computer program product is described. The computer program product comprises: one or more cameras; a display generation component; one or more input devices; one or more processors; and memory storing one or more programs configured to be executed by the one or more processors, the one or more programs including instructions for: displaying, via the display generation component, a user interface that includes: a representation of a video that includes a plurality of frames, the representation including a first subject and a second subject; and a first user interface object indicating that the first subject is being emphasized by a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject; while displaying the user interface that includes the representation of the video and the first user interface object, detecting, via the one or more input devices, a gesture that corresponds to selection of the second subject in the representation of the video; and in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video: changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject, and displaying a second user interface object indicating that the second subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject.

In accordance with some embodiments, a method performed at a computer system that is in communication with a display generation component is described. The method comprises: displaying, via the display generation component, a user interface that includes concurrently displaying: a representation of a video having a first duration, where the video includes a plurality of changes in subject emphasis in the video, where a change in subject emphasis in the video includes a change in appearance of visual information captured by one or more cameras to emphasize one subject relative to one or more elements in the video, where the plurality of changes include an automatic change in subject emphasis at a first time during the first duration and a user-specified change in subject emphasis at a second time during the first duration that is different from the first time; and a video navigation user interface element for navigating through the video that includes a representation of the first time and a representation of the second time, where: the representation of the second time is visually distinguished from other times in the first duration of the video that do not correspond to changes in subject emphasis; and the representation of the first time is visually distinguished from the representation of the second time.

In accordance with some embodiments, a non-transitory computer-readable storage medium is described. The non-transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors of a computer system that is in communication with a display generation component, the one or more programs including instructions for: displaying, via the display generation component, a user interface that includes concurrently displaying: a representation of a video having a first duration, where the video includes a plurality of changes in subject emphasis in the video, where a change in subject emphasis in the video includes a change in appearance of visual information captured by one or more cameras to emphasize one subject relative to one or more elements in the video, where the plurality of changes include an automatic change in subject emphasis at a first time during the first duration and a user-specified change in subject emphasis at a second time during the first duration that is different from the first time; and a video navigation user interface element for navigating through the video that includes a representation of the first time and a representation of the second time, where: the representation of the second time is visually distinguished from other times in the first duration of the video that do not correspond to changes in subject emphasis; and the representation of the first time is visually distinguished from the representation of the second time.

In accordance with some embodiments, a transitory computer-readable storage medium is described. The transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors of a computer system that is in communication with a display generation component, the one or more programs including instructions for: displaying, via the display generation component, a user interface that includes concurrently displaying: a representation of a video having a first duration, where the video includes a plurality of changes in subject emphasis in the video, where a change in subject emphasis in the video includes a change in appearance of visual information captured by one or more cameras to emphasize one subject relative to one or more elements in the video, where the plurality of changes include an automatic change in subject emphasis at a first time during the first duration and a user-specified change in subject emphasis at a second time during the first duration that is different from the first time; and a video navigation user interface element for navigating through the video that includes a representation of the first time and a representation of the second time, where: the representation of the second time is visually distinguished from other times in the first duration of the video that do not correspond to changes in subject emphasis; and the representation of the first time is visually distinguished from the representation of the second time.

In accordance with some embodiments, a computer system is described. The computer system is configured to communicate with one or more cameras; a display generation component. The computer system comprises: one or more processors; and memory storing one or more programs configured to be executed by the one or more processors, the one or more programs including instructions for: displaying, via the display generation component, a user interface that includes concurrently displaying: a representation of a video having a first duration, where the video includes a plurality of changes in subject emphasis in the video, where a change in subject emphasis in the video includes a change in appearance of visual information captured by one or more cameras to emphasize one subject relative to one or more elements in the video, where the plurality of changes include an automatic change in subject emphasis at a first time during the first duration and a user-specified change in subject emphasis at a second time during the first duration that is different from the first time; and a video navigation user interface element for navigating through the video that includes a representation of the first time and a representation of the second time, where: the representation of the second time is visually distinguished from other times in the first duration of the video that do not correspond to changes in subject emphasis; and the representation of the first time is visually distinguished from the representation of the second time.

In accordance with some embodiments, a computer system is described. The computer system is configured to communicate with one or more cameras; a display generation component. The computer system comprises: means for displaying, via the display generation component, a user interface that includes: displaying, via the display generation component, a user interface that includes concurrently displaying: a representation of a video having a first duration, where the video includes a plurality of changes in subject emphasis in the video, where a change in subject emphasis in the video includes a change in appearance of visual information captured by one or more cameras to emphasize one subject relative to one or more elements in the video, where the plurality of changes include an automatic change in subject emphasis at a first time during the first duration and a user-specified change in subject emphasis at a second time during the first duration that is different from the first time; and a video navigation user interface element for navigating through the video that includes a representation of the first time and a representation of the second time, where: the representation of the second time is visually distinguished from other times in the first duration of the video that do not correspond to changes in subject emphasis; and the representation of the first time is visually distinguished from the representation of the second time.

In accordance with some embodiments, a computer program product is described. The computer program product comprises: a display generation component; one or more processors; memory storing one or more programs configured to be executed by the one or more processors, the one or more programs including instructions for: displaying, via the display generation component, a user interface that includes concurrently displaying: a representation of a video having a first duration, where the video includes a plurality of changes in subject emphasis in the video, where a change in subject emphasis in the video includes a change in appearance of visual information captured by one or more cameras to emphasize one subject relative to one or more elements in the video, where the plurality of changes include an automatic change in subject emphasis at a first time during the first duration and a user-specified change in subject emphasis at a second time during the first duration that is different from the first time; and a video navigation user interface element for navigating through the video that includes a representation of the first time and a representation of the second time, where: the representation of the second time is visually distinguished from other times in the first duration of the video that do not correspond to changes in subject emphasis; and the representation of the first time is visually distinguished from the representation of the second time.

In accordance with some embodiments, a method performed at a computer system that is in communication with a display generation component and a plurality of cameras that includes a first camera with first image capture parameters determined by hardware of the first camera and a second camera with second image capture parameters determined by hardware of the second camera, wherein the second image capture parameters are different than the first image capture parameters, is described. The method comprises: displaying, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, wherein the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters; while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point; and in response to detecting the decrease in distance between the camera location and the focal point location: in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

In accordance with some embodiments, a non-transitory computer-readable storage medium is described. The non-transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors of a computer system that is in communication with a display generation component and a plurality of cameras that includes a first camera with first image capture parameters determined by hardware of the first camera and a second camera with second image capture parameters determined by hardware of the second camera, wherein the second image capture parameters are different than the first image capture parameters, the one or more programs including instructions for: displaying, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, wherein the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters; while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point; and in response to detecting the decrease in distance between the camera location and the focal point location: in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

In accordance with some embodiments, a transitory computer-readable storage medium is described. The transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors of a computer system that is in communication with a display generation component and a plurality of cameras that includes a first camera with first image capture parameters determined by hardware of the first camera and a second camera with second image capture parameters determined by hardware of the second camera, wherein the second image capture parameters are different than the first image capture parameters, the one or more programs including instructions for: displaying, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, wherein the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters; while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point; and in response to detecting the decrease in distance between the camera location and the focal point location: in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

In accordance with some embodiments, a computer system is described. The computer system is configured to communicate with a display generation component and a plurality of cameras that includes a first camera with first image capture parameters determined by hardware of the first camera and a second camera with second image capture parameters determined by hardware of the second camera, wherein the second image capture parameters are different than the first image capture parameters. The computer system comprises: one or more processors; and memory storing one or more programs configured to be executed by the one or more processors, the one or more programs including instructions for: displaying, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, wherein the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters; while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point; and in response to detecting the decrease in distance between the camera location and the focal point location: in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

In accordance with some embodiments, a computer system is described. The computer system is configured to communicate with a display generation component and a plurality of cameras that includes a first camera with first image capture parameters determined by hardware of the first camera and a second camera with second image capture parameters determined by hardware of the second camera, wherein the second image capture parameters are different than the first image capture parameters, is described. The computer system comprises: means for displaying, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, wherein the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters; means, while displaying the representation of the field-of-view using the visual information collected by the first camera, for detecting a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point; and means, responsive to detecting the decrease in distance between the camera location and the focal point location, for: in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

In accordance with some embodiments, a computer program product is described. The computer program product comprises one or more programs configured to be executed by one or more processors of a computer system that is in communication with a display generation component and a plurality of cameras that includes a first camera with first image capture parameters determined by hardware of the first camera and a second camera with second image capture parameters determined by hardware of the second camera, wherein the second image capture parameters are different than the first image capture parameters. The one or more programs include instructions for: displaying, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, wherein the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters; while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point; and in response to detecting the decrease in distance between the camera location and the focal point location: in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

In accordance with some embodiments, a method performed at a computer system that is in communication with a display generation component is described. The method comprises: playing, via the display generation component, a portion of a video that includes a first subject emphasis change that occurs at a first time, wherein the first subject emphasis change includes a change in appearance of visual information captured by one or more cameras to emphasize a respective subject relative to one or more elements in the video during a first period of time that follows the first time; after playing the portion of the video that includes the first subject emphasis change that occurs at the first time, detecting a request to change subject emphasis at a second time in the video that is different from the first time; and in response to detecting the request to change subject emphasis at the second time in the video: changing the subject emphasis in the video during a second period of time that follows the second time; and changing the first subject emphasis change that occurs at the first time including changing the emphasis of the respective subject relative to the one or more elements in the video during the first period of time that follows the first time.

In accordance with some embodiments, a non-transitory computer-readable storage medium is described. The non-transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors of a computer system that is in communication with a display generation component, the one or more programs including instructions for: playing, via the display generation component, a portion of a video that includes a first subject emphasis change that occurs at a first time, wherein the first subject emphasis change includes a change in appearance of visual information captured by one or more cameras to emphasize a respective subject relative to one or more elements in the video during a first period of time that follows the first time; after playing the portion of the video that includes the first subject emphasis change that occurs at the first time, detecting a request to change subject emphasis at a second time in the video that is different from the first time; and in response to detecting the request to change subject emphasis at the second time in the video: changing the subject emphasis in the video during a second period of time that follows the second time; and changing the first subject emphasis change that occurs at the first time including changing the emphasis of the respective subject relative to the one or more elements in the video during the first period of time that follows the first time.

In accordance with some embodiments, a transitory computer-readable storage medium is described. The transitory computer-readable storage medium stores one or more programs configured to be executed by one or more processors of a computer system that is in communication with a display generation component, the one or more programs including instructions for: playing, via the display generation component, a portion of a video that includes a first subject emphasis change that occurs at a first time, wherein the first subject emphasis change includes a change in appearance of visual information captured by one or more cameras to emphasize a respective subject relative to one or more elements in the video during a first period of time that follows the first time; after playing the portion of the video that includes the first subject emphasis change that occurs at the first time, detecting a request to change subject emphasis at a second time in the video that is different from the first time; and in response to detecting the request to change subject emphasis at the second time in the video: changing the subject emphasis in the video during a second period of time that follows the second time; and changing the first subject emphasis change that occurs at the first time including changing the emphasis of the respective subject relative to the one or more elements in the video during the first period of time that follows the first time.

In accordance with some embodiments, a computer system that is configured to communicate with a display generation component is described. The computer system comprises: one or more processors; and memory storing one or more programs configured to be executed by the one or more processors, the one or more programs including instructions for: playing, via the display generation component, a portion of a video that includes a first subject emphasis change that occurs at a first time, wherein the first subject emphasis change includes a change in appearance of visual information captured by one or more cameras to emphasize a respective subject relative to one or more elements in the video during a first period of time that follows the first time; after playing the portion of the video that includes the first subject emphasis change that occurs at the first time, detecting a request to change subject emphasis at a second time in the video that is different from the first time; and in response to detecting the request to change subject emphasis at the second time in the video: changing the subject emphasis in the video during a second period of time that follows the second time; and changing the first subject emphasis change that occurs at the first time including changing the emphasis of the respective subject relative to the one or more elements in the video during the first period of time that follows the first time.

In accordance with some embodiments, a computer system that is configured to communicate with a display generation component and one or more input devices is described. The computer system comprises: means for playing, via the display generation component, a portion of a video that includes a first subject emphasis change that occurs at a first time, wherein the first subject emphasis change includes a change in appearance of visual information captured by one or more cameras to emphasize a respective subject relative to one or more elements in the video during a first period of time that follows the first time; means, after playing the portion of the video that includes the first subject emphasis change that occurs at the first time, for detecting a request to change subject emphasis at a second time in the video that is different from the first time; and means, responsive to detecting the request to change subject emphasis at the second time in the video, for: changing the subject emphasis in the video during a second period of time that follows the second time; and changing the first subject emphasis change that occurs at the first time including changing the emphasis of the respective subject relative to the one or more elements in the video during the first period of time that follows the first time.

In accordance with some embodiments, a computer program product is described. The computer program product comprises one or more programs configured to be executed by one or more processors of a computer system that is in communication with a display generation component. The one or more programs include instructions for: playing, via the display generation component, a portion of a video that includes a first subject emphasis change that occurs at a first time, wherein the first subject emphasis change includes a change in appearance of visual information captured by one or more cameras to emphasize a respective subject relative to one or more elements in the video during a first period of time that follows the first time; after playing the portion of the video that includes the first subject emphasis change that occurs at the first time, detecting a request to change subject emphasis at a second time in the video that is different from the first time; and in response to detecting the request to change subject emphasis at the second time in the video: changing the subject emphasis in the video during a second period of time that follows the second time; and changing the first subject emphasis change that occurs at the first time including changing the emphasis of the respective subject relative to the one or more elements in the video during the first period of time that follows the first time.

Executable instructions for performing these functions are, optionally, included in a non-transitory computer-readable storage medium or other computer program product configured for execution by one or more processors. Executable instructions for performing these functions are, optionally, included in a transitory computer-readable storage medium or other computer program product configured for execution by one or more processors.

Thus, devices are provided with faster, more efficient methods and interfaces for altering visual content, thereby increasing the effectiveness, efficiency, and user satisfaction with such devices. Such methods and interfaces may complement or replace other methods for altering visual content.

DESCRIPTION OF THE FIGURES

For a better understanding of the various described embodiments, reference should be made to the Description of Embodiments below, in conjunction with the following drawings in which like reference numerals refer to corresponding parts throughout the figures.

FIG. **1**A is a block diagram illustrating a portable multifunction device with a touch-sensitive display in accordance with some embodiments.

FIG. **1**B is a block diagram illustrating exemplary components for event handling in accordance with some embodiments.

FIG. **2** illustrates a portable multifunction device having a touch screen in accordance with some embodiments.

FIG. **3** is a block diagram of an exemplary multifunction device with a display and a touch-sensitive surface in accordance with some embodiments.

FIG. **4**A illustrates an exemplary user interface for a menu of applications on a portable multifunction device in accordance with some embodiments.

FIG. **4**B illustrates an exemplary user interface for a multifunction device with a touch-sensitive surface that is separate from the display in accordance with some embodiments.

FIG. **5**A illustrates a personal electronic device in accordance with some embodiments.

FIG. **5**B is a block diagram illustrating a personal electronic device in accordance with some embodiments.

FIGS. **6**A-**6**BJ illustrate exemplary user interfaces for altering visual media using a computer system in accordance with some embodiments.

FIG. **7** is a flow diagram illustrating an exemplary method for altering visual media using a computer system in accordance with some embodiments.

FIG. **8** is a flow diagram illustrating an exemplary method for altering visual media using a computer system in accordance with some embodiments.

FIG. **9** is a flow diagram illustrating an exemplary method for altering visual media using a computer system in accordance with some embodiments.

FIGS. **10**A-**10**I illustrate exemplary user interfaces for managing media capture using a computer system in accordance with some embodiments.

FIG. **11** is a flow diagram illustrating an exemplary method for managing media capture using a computer system in accordance with some embodiments.

FIG. **12** is a block diagram illustrating a neural network system.

FIG. **13** is a flow diagram illustrating an exemplary method for altering visual media using a computer system in accordance with some embodiments.

DESCRIPTION OF EMBODIMENTS

The following description sets forth exemplary methods, parameters, and the like. It should be recognized, however, that such description is not intended as a limitation on the scope of the present disclosure but is instead provided as a description of exemplary embodiments.

There is a need for electronic devices that provide efficient methods and interfaces altering visual content. For example, electronic devices are needed that allow a user to alter visual content by applying a synthetic depth-of-field effect to multiple frames of media without having to manually change and/or blur the frames of the media to mimic a depth-of-field effect. Such techniques can reduce the cognitive burden on a user who desires to alter visual content in media, thereby enhancing productivity. Further, such techniques can reduce processor use and battery power otherwise wasted on redundant user inputs.

Below, FIGS. **1**A-**1**B, **2**, **3**, **4**A-**4**B, **5**A-**5**B, and **12** provide a description of exemplary devices and systems for performing the techniques for managing and altering visual media. FIGS. **6**A-**6**BJ are user interfaces for altering visual media using a computer system in accordance with some embodiments. FIG. **7** is a flow diagram illustrating methods of altering visual content in accordance with some embodiments. FIG. **8** is a flow diagram illustrating methods of altering visual content in accordance with some embodiments. FIG. **9** is a flow diagram illustrating methods of altering visual content in accordance with some embodiments. FIG. **13** is a flow diagram illustrating methods of altering visual content in accordance with some embodiments. The user interfaces in FIGS. **6**A-**6**BJ are used to illustrate the processes described below, including the processes in FIGS. **7**, **8**, **9**, and **13**.

FIGS. **10**A-**10**I illustrate exemplary user interfaces for managing media capture using a computer system in accordance with some embodiments. FIG. **11** is a flow diagram illustrating an exemplary method for managing media capture using a computer system in accordance with some embodiments. The user interfaces in FIGS. **10**A-**10**I are used to illustrate the processes described below, including the processes in FIG. **11**.

The processes described below enhance the operability of the devices and make the user-device interfaces more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the device) through various techniques, including by providing improved visual feedback to the user, reducing the number of inputs needed to perform an operation, providing additional control options without cluttering the user interface with additional displayed controls, performing an operation when a set of conditions has been met without requiring further user input, and/or additional techniques. These techniques also reduce power usage and improve battery life of the device by enabling the user to use the device more quickly and efficiently.

In addition, in methods described herein where one or more steps are contingent upon one or more conditions having been met, it should be understood that the described method can be repeated in multiple repetitions so that over the course of the repetitions all of the conditions upon which steps in the method are contingent have been met in different repetitions of the method. For example, if a method requires performing a first step if a condition is satisfied, and a second step if the condition is not satisfied, then a person of ordinary skill would appreciate that the claimed steps are repeated until the condition has been both satisfied and not satisfied, in no particular order. Thus, a method described with one or more steps that are contingent upon one or more conditions having been met could be rewritten as a method that is repeated until each of the conditions described in the method has been met. This, however, is not required of system or computer readable medium claims where the system or computer readable medium contains instructions for performing the contingent operations based on the satisfaction of the corresponding one or more conditions and thus is capable of determining whether the contingency has or has not been satisfied without explicitly repeating steps of a method until all of the conditions upon which steps in the method are contingent have been met. A person having ordinary skill in the art would also understand that, similar to a method with contingent steps, a system or computer readable storage medium can repeat the steps of a method as many times as are needed to ensure that all of the contingent steps have been performed.

Although the following description uses terms "first," "second," etc. to describe various elements, these elements should not be limited by the terms. These terms are only used to distinguish one element from another. For example, a first touch could be termed a second touch, and, similarly, a second touch could be termed a first touch, without departing from the scope of the various described embodiments. The first touch and the second touch are both touches, but they are not the same touch.

The terminology used in the description of the various described embodiments herein is for the purpose of describing particular embodiments only and is not intended to be limiting. As used in the description of the various described embodiments and the appended claims, the singular forms "a," "an," and "the" are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will also be understood that the term "and/or" as used herein refers to and encompasses any and all possible combinations of one or more of the associated listed items. It will be further understood that the terms "includes," "including," "comprises," and/or "comprising," when used in this specification, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof.

The term "if" is, optionally, construed to mean "when" or "upon" or "in response to determining" or "in response to detecting," depending on the context. Similarly, the phrase "if it is determined" or "if [a stated condition or event] is detected" is, optionally, construed to mean "upon determining" or "in response to determining" or "upon detecting [the stated condition or event]" or "in response to detecting [the stated condition or event]," depending on the context.

Embodiments of electronic devices, user interfaces for such devices, and associated processes for using such devices are described. In some embodiments, the device is a portable communications device, such as a mobile telephone, that also contains other functions, such as PDA and/or music player functions. Exemplary embodiments of portable multifunction devices include, without limitation, the iPhone®, iPod Touch®, and iPad® devices from Apple Inc. of Cupertino, Calif. Other portable electronic devices, such as laptops or tablet computers with touch-sensitive surfaces (e.g., touch screen displays and/or touchpads), are, optionally, used. It should also be understood that, in some embodiments, the device is not a portable communications device, but is a desktop computer with a touch-sensitive surface (e.g., a touch screen display and/or a touchpad). In some embodiments, the electronic device is a computer system that is in communication (e.g., via wireless communication, via wired communication) with a display generation component. The display generation component is configured to provide visual output, such as display via a CRT display, display via an LED display, or display via image projection. In some embodiments, the display generation component is integrated with the computer system. In some embodiments, the display generation component is separate from the computer system. As used herein, "displaying" content includes causing to display the content (e.g., video data rendered or decoded by display controller **156**) by transmitting, via a wired or wireless connection, data (e.g., image data or video data) to an integrated or external display generation component to visually produce the content.

In the discussion that follows, an electronic device that includes a display and a touch-sensitive surface is described. It should be understood, however, that the electronic device optionally includes one or more other physical user-interface devices, such as a physical keyboard, a mouse, and/or a joystick.

The device typically supports a variety of applications, such as one or more of the following: a drawing application, a presentation application, a word processing application, a website creation application, a disk authoring application, a spreadsheet application, a gaming application, a telephone application, a video conferencing application, an e-mail application, an instant messaging application, a workout support application, a photo management application, a digital camera application, a digital video camera application, a web browsing application, a digital music player application, and/or a digital video player application.

The various applications that are executed on the device optionally use at least one common physical user-interface device, such as the touch-sensitive surface. One or more functions of the touch-sensitive surface as well as corresponding information displayed on the device are, optionally, adjusted and/or varied from one application to the next and/or within a respective application. In this way, a common physical architecture (such as the touch-sensitive surface) of the device optionally supports the variety of applications with user interfaces that are intuitive and transparent to the user.

Attention is now directed toward embodiments of portable devices with touch-sensitive displays. FIG. **1**A is a block diagram illustrating portable multifunction device **100** with touch-sensitive display system **112** in accordance with some embodiments. Touch-sensitive display **112** is sometimes called a "touch screen" for convenience and is sometimes known as or called a "touch-sensitive display system." Device **100** includes memory **102** (which optionally includes one or more computer-readable storage mediums), memory controller **122**, one or more processing units (CPUs) **120**, peripherals interface **118**, RF circuitry **108**, audio circuitry **110**, speaker **111**, microphone **113**, input/output (I/O) subsystem **106**, other input control devices **116**, and external port **124**. Device **100** optionally includes one or more optical sensors **164**. Device **100** optionally includes one or more contact intensity sensors **165** for detecting intensity of contacts on device **100** (e.g., a touch-sensitive surface such as touch-sensitive display system **112** of device **100**). Device **100** optionally includes one or more tactile output generators **167** for generating tactile outputs on device **100** (e.g., generating tactile outputs on a touch-sensitive surface such as touch-sensitive display system **112** of device **100** or touchpad **355** of device **300**). These components optionally communicate over one or more communication buses or signal lines **103**.

As used in the specification and claims, the term "intensity" of a contact on a touch-sensitive surface refers to the force or pressure (force per unit area) of a contact (e.g., a finger contact) on the touch-sensitive surface, or to a substitute (proxy) for the force or pressure of a contact on the touch-sensitive surface. The intensity of a contact has a range of values that includes at least four distinct values and more typically includes hundreds of distinct values (e.g., at least **256**). Intensity of a contact is, optionally, determined (or measured) using various approaches and various sensors or combinations of sensors. For example, one or more force sensors underneath or adjacent to the touch-sensitive surface are, optionally, used to measure force at various points on the touch-sensitive surface. In some implementations, force measurements from multiple force sensors are combined (e.g., a weighted average) to determine an estimated force of a contact. Similarly, a pressure-sensitive tip of a stylus is, optionally, used to determine a pressure of the stylus on the touch-sensitive surface. Alternatively, the size of the contact area detected on the touch-sensitive surface and/or changes thereto, the capacitance of the touch-sensitive surface proximate to the contact and/or changes thereto, and/or the resistance of the touch-sensitive surface proximate to the contact and/or changes thereto are, optionally, used as a substitute for the force or pressure of the contact on the touch-sensitive surface. In some implementations, the substitute measurements for contact force or pressure are used directly to determine whether an intensity threshold has been exceeded (e.g., the intensity threshold is described in units corresponding to the substitute measurements). In some implementations, the substitute measurements for contact force or pressure are converted to an estimated force or pressure, and the estimated force or pressure is used to determine whether an intensity threshold has been exceeded (e.g., the intensity threshold is a pressure threshold measured in units of pressure). Using the intensity of a contact as an attribute of a user input allows for user access to additional device functionality that may otherwise not be accessible by the user on a reduced-size device with limited real estate for displaying affordances (e.g., on a touch-sensitive display) and/or receiving user input (e.g., via a touch-sensitive display, a touch-sensitive surface, or a physical/mechanical control such as a knob or a button).

As used in the specification and claims, the term "tactile output" refers to physical displacement of a device relative to a previous position of the device, physical displacement of a component (e.g., a touch-sensitive surface) of a device relative to another component (e.g., housing) of the device, or displacement of the component relative to a center of mass of the device that will be detected by a user with the user's sense of touch. For example, in situations where the device or the component of the device is in contact with a surface of a user that is sensitive to touch (e.g., a finger, palm, or other part of a user's hand), the tactile output generated by the physical displacement will be interpreted by the user as a tactile sensation corresponding to a perceived change in physical characteristics of the device or the component of the device. For example, movement of a touch-sensitive surface (e.g., a touch-sensitive display or trackpad) is, optionally, interpreted by the user as a "down click" or "up click" of a physical actuator button. In some cases, a user will feel a tactile sensation such as an "down click" or "up click" even when there is no movement of a physical actuator button associated with the touch-sensitive surface that is physically pressed (e.g., displaced) by the user's movements. As another example, movement of the touch-sensitive surface is, optionally, interpreted or sensed by the user as "roughness" of the touch-sensitive surface, even when there is no change in smoothness of the touch-sensitive surface. While such interpretations of touch by a user will be subject to the individualized sensory perceptions of the user, there are many sensory perceptions of touch that are common to a large majority of users. Thus, when a tactile output is described as corresponding to a particular sensory perception of a user (e.g., an "up click," a "down click," "roughness"), unless otherwise stated, the generated tactile output corresponds to physical displacement of the device or a component thereof that will generate the described sensory perception for a typical (or average) user.

It should be appreciated that device **100** is only one example of a portable multifunction device, and that device **100** optionally has more or fewer components than shown, optionally combines two or more components, or optionally has a different configuration or arrangement of the components. The various components shown in FIG. **1**A are implemented in hardware, software, or a combination of both hardware and software, including one or more signal processing and/or application-specific integrated circuits.

Memory **102** optionally includes high-speed random access memory and optionally also includes non-volatile memory, such as one or more magnetic disk storage devices, flash memory devices, or other non-volatile solid-state memory devices. Memory controller **122** optionally controls access to memory **102** by other components of device **100**.

Peripherals interface **118** can be used to couple input and output peripherals of the device to CPU **120** and memory **102**. The one or more processors **120** run or execute various software programs and/or sets of instructions stored in memory **102** to perform various functions for device **100** and to process data. In some embodiments, peripherals interface **118**, CPU **120**, and memory controller **122** are, optionally, implemented on a single chip, such as chip **104**. In some other embodiments, they are, optionally, implemented on separate chips.

RF (radio frequency) circuitry **108** receives and sends RF signals, also called electromagnetic signals. RF circuitry **108** converts electrical signals to/from electromagnetic signals and communicates with communications networks and other communications devices via the electromagnetic signals. RF circuitry **108** optionally includes well-known circuitry for performing these functions, including but not limited to an antenna system, an RF transceiver, one or more amplifiers, a tuner, one or more oscillators, a digital signal processor, a CODEC chipset, a subscriber identity module (SIM) card, memory, and so forth. RF circuitry **108** optionally communicates with networks, such as the Internet, also referred to as the World Wide Web (WWW), an intranet and/or a wireless network, such as a cellular telephone network, a wireless local area network (LAN) and/or a metropolitan area network (MAN), and other devices by wireless communication. The RF circuitry **108** optionally includes well-known circuitry for detecting near field communication (NFC) fields, such as by a short-range communication radio. The wireless communication optionally uses any of a plurality of communications standards, protocols, and technologies, including but not limited to Global System for Mobile Communications (GSM), Enhanced Data GSM Environment (EDGE), high-speed downlink packet access (HSDPA), high-speed uplink packet access (HSUPA), Evolution, Data-Only (EV-DO), HSPA, HSPA+, Dual-Cell HSPA (DC-HSPDA), long term evolution (LTE), near field communication (NFC), wideband code division multiple access (W-CDMA), code division multiple access (CDMA), time division multiple access (TDMA), Bluetooth, Bluetooth Low Energy (BTLE), Wireless Fidelity (Wi-Fi) (e.g., IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, and/or IEEE 802.11ac), voice over Internet Protocol (VoIP), Wi-MAX, a protocol for e-mail (e.g., Internet message access protocol (IMAP) and/or post office protocol (POP)), instant messaging (e.g., extensible messaging and presence protocol (XMPP), Session Initiation Protocol for Instant Messaging and Presence Leveraging Extensions (SIMPLE), Instant Messaging and Presence Service (IMPS)), and/or Short Message Service (SMS), or any other suitable communication protocol, including communication protocols not yet developed as of the filing date of this document.

Audio circuitry **110**, speaker **111**, and microphone **113** provide an audio interface between a user and device **100**. Audio circuitry **110** receives audio data from peripherals interface **118**, converts the audio data to an electrical signal, and transmits the electrical signal to speaker **111**. Speaker **111** converts the electrical signal to human-audible sound waves. Audio circuitry **110** also receives electrical signals converted by microphone **113** from sound waves. Audio circuitry **110** converts the electrical signal to audio data and transmits the audio data to peripherals interface **118** for processing. Audio data is, optionally, retrieved from and/or transmitted to memory **102** and/or RF circuitry **108** by peripherals interface **118**. In some embodiments, audio circuitry **110** also includes a headset jack (e.g., **212**, FIG. **2**). The headset jack provides an interface between audio circuitry **110** and removable audio input/output peripherals, such as output-only headphones or a headset with both output (e.g., a headphone for one or both ears) and input (e.g., a microphone).

I/O subsystem **106** couples input/output peripherals on device **100**, such as touch screen **112** and other input control devices **116**, to peripherals interface **118**. I/O subsystem **106** optionally includes display controller **156**, optical sensor controller **158**, depth camera controller **169**, intensity sensor controller **159**, haptic feedback controller **161**, and one or more input controllers **160** for other input or control devices. The one or more input controllers **160** receive/send electrical signals from/to other input control devices **116**. The other input control devices **116** optionally include physical buttons (e.g., push buttons, rocker buttons, etc.), dials, slider switches, joysticks, click wheels, and so forth. In some embodiments, input controller(s) **160** are, optionally, coupled to any (or none) of the following: a keyboard, an infrared port, a USB port, and a pointer device such as a mouse. The one or more buttons (e.g., **208**, FIG. **2**) optionally include an up/down button for volume control of speaker **111** and/or microphone **113**. The one or more buttons optionally include a push button (e.g., **206**, FIG. **2**). In some embodiments, the electronic device is a computer system that is in communication (e.g., via wireless communication, via wired communication) with one or more input devices. In some embodiments, the one or more input devices include a touch-sensitive surface (e.g., a trackpad, as part of a touch-sensitive display). In some embodiments, the one or more input devices include one or more camera sensors (e.g., one or more optical sensors **164** and/or one or more depth camera sensors **175**), such as for tracking a user's gestures (e.g., hand gestures) as input. In some embodiments, the one or more input devices are integrated with the computer system. In some embodiments, the one or more input devices are separate from the computer system.

A quick press of the push button optionally disengages a lock of touch screen **112** or optionally begins a process that uses gestures on the touch screen to unlock the device, as described in U.S. patent application Ser. No. 11/322,549, "Unlocking a Device by Performing Gestures on an Unlock Image," filed Dec. 23, 2005, U.S. Pat. No. 7,657,849, which is hereby incorporated by reference in its entirety. A longer press of the push button (e.g., **206**) optionally turns power to device **100** on or off. The functionality of one or more of the buttons are, optionally, user-customizable. Touch screen **112** is used to implement virtual or soft buttons and one or more soft keyboards.

Touch-sensitive display **112** provides an input interface and an output interface between the device and a user. Display controller **156** receives and/or sends electrical signals from/to touch screen **112**. Touch screen **112** displays visual output to the user. The visual output optionally includes graphics, text, icons, video, and any combination thereof (collectively termed "graphics"). In some embodiments, some or all of the visual output optionally corresponds to user-interface objects.

Touch screen **112** has a touch-sensitive surface, sensor, or set of sensors that accepts input from the user based on haptic and/or tactile contact. Touch screen **112** and display controller **156** (along with any associated modules and/or sets of instructions in memory **102**) detect contact (and any movement or breaking of the contact) on touch screen **112** and convert the detected contact into interaction with user-interface objects (e.g., one or more soft keys, icons, web pages, or images) that are displayed on touch screen **112**. In an exemplary embodiment, a point of contact between touch screen **112** and the user corresponds to a finger of the user.

Touch screen **112** optionally uses LCD (liquid crystal display) technology, LPD (light emitting polymer display) technology, or LED (light emitting diode) technology, although other display technologies are used in other embodiments. Touch screen **112** and display controller **156** optionally detect contact and any movement or breaking thereof using any of a plurality of touch sensing technologies now known or later developed, including but not limited to capacitive, resistive, infrared, and surface acoustic wave technologies, as well as other proximity sensor arrays or other elements for determining one or more points of contact with touch screen **112**. In an exemplary embodiment, projected mutual capacitance sensing technology is used, such as that found in the iPhone® and iPod Touch® from Apple Inc. of Cupertino, Calif.

A touch-sensitive display in some embodiments of touch screen **112** is, optionally, analogous to the multi-touch sensitive touchpads described in the following U.S. Pat. No. 6,323,846 (Westerman et al.), U.S. Pat. No. 6,570,557 (Westerman et al.), and/or U.S. Pat. No. 6,677,932 (Westerman), and/or U.S. Patent Publication 2002/0015024A1, each of which is hereby incorporated by reference in its entirety. However, touch screen **112** displays visual output from device **100**, whereas touch-sensitive touchpads do not provide visual output.

A touch-sensitive display in some embodiments of touch screen **112** is described in the following applications: (1) U.S. patent application Ser. No. 11/381,313, "Multipoint Touch Surface Controller," filed May 2, 2006; (2) U.S. patent application Ser. No. 10/840,862, "Multipoint Touchscreen," filed May 6, 2004; (3) U.S. patent application Ser. No. 10/903,964, "Gestures For Touch Sensitive Input Devices," filed Jul. 30, 2004; (4) U.S. patent application Ser. No. 11/048,264, "Gestures For Touch Sensitive Input Devices," filed Jan. 31, 2005; (5) U.S. patent application Ser. No. 11/038,590, "Mode-Based Graphical User Interfaces For Touch Sensitive Input Devices," filed Jan. 18, 2005; (6) U.S. patent application Ser. No. 11/228,758, "Virtual Input Device Placement On A Touch Screen User Interface," filed Sep. 16, 2005; (7) U.S. patent application Ser. No. 11/228,700, "Operation Of A Computer With A Touch Screen Interface," filed Sep. 16, 2005; (8) U.S. patent application Ser. No. 11/228,737, "Activating Virtual Keys Of A Touch-Screen Virtual Keyboard," filed Sep. 16, 2005; and (9) U.S. patent application Ser. No. 11/367,749, "Multi-Functional Hand-Held Device," filed Mar. 3, 2006. All of these applications are incorporated by reference herein in their entirety.

Touch screen **112** optionally has a video resolution in excess of 100 dpi. In some embodiments, the touch screen has a video resolution of approximately 160 dpi. The user optionally makes contact with touch screen **112** using any suitable object or appendage, such as a stylus, a finger, and so forth. In some embodiments, the user interface is designed to work primarily with finger-based contacts and gestures, which can be less precise than stylus-based input due to the larger area of contact of a finger on the touch screen. In some embodiments, the device translates the rough finger-based input into a precise pointer/cursor position or command for performing the actions desired by the user.

In some embodiments, in addition to the touch screen, device **100** optionally includes a touchpad for activating or deactivating particular functions. In some embodiments, the touchpad is a touch-sensitive area of the device that, unlike the touch screen, does not display visual output. The touchpad is, optionally, a touch-sensitive surface that is separate from touch screen **112** or an extension of the touch-sensitive surface formed by the touch screen.

Device **100** also includes power system **162** for powering the various components. Power system **162** optionally includes a power management system, one or more power sources (e.g., battery, alternating current (AC)), a recharging system, a power failure detection circuit, a power converter or inverter, a power status indicator (e.g., a light-emitting diode (LED)) and any other components associated with the generation, management and distribution of power in portable devices.

Device **100** optionally also includes one or more optical sensors **164**. FIG. **1**A shows an optical sensor coupled to optical sensor controller **158** in I/O subsystem **106**. Optical sensor **164** optionally includes charge-coupled device (CCD) or complementary metal-oxide semiconductor (CMOS) phototransistors. Optical sensor **164** receives light from the environment, projected through one or more lenses, and converts the light to data representing an image. In conjunction with imaging module **143** (also called a camera module), optical sensor **164** optionally captures still images or video. In some embodiments, an optical sensor is located on the back of device **100**, opposite touch screen display **112** on the front of the device so that the touch screen display is enabled for use as a viewfinder for still and/or video image acquisition. In some embodiments, an optical sensor is located on the front of the device so that the user's image is, optionally, obtained for video conferencing while the user views the other video conference participants on the touch screen display. In some embodiments, the position of optical sensor **164** can be changed by the user (e.g., by rotating the lens and the sensor in the device housing) so that a single optical sensor **164** is used along with the touch screen display for both video conferencing and still and/or video image acquisition.

Device **100** optionally also includes one or more depth camera sensors **175**. FIG. **1**A shows a depth camera sensor coupled to depth camera controller **169** in I/O subsystem **106**. Depth camera sensor **175** receives data from the environment to create a three dimensional model of an object (e.g., a face) within a scene from a viewpoint (e.g., a depth camera sensor). In some embodiments, in conjunction with imaging module **143** (also called a camera module), depth camera sensor **175** is optionally used to determine a depth map of different portions of an image captured by the imaging module **143**. In some embodiments, a depth camera sensor is located on the front of device **100** so that the user's image with depth information is, optionally, obtained for video conferencing while the user views the other video conference participants on the touch screen display and to capture selfies with depth map data. In some embodiments, the depth camera sensor **175** is located on the back of device, or on the back and the front of the device **100**. In some embodiments, the position of depth camera sensor **175** can be changed by the user (e.g., by rotating the lens and the sensor in the device housing) so that a depth camera sensor **175** is used along with the touch screen display for both video conferencing and still and/or video image acquisition.

In some embodiments, a depth map (e.g., depth map image) contains information (e.g., values) that relates to the distance of objects in a scene from a viewpoint (e.g., a camera, an optical sensor, a depth camera sensor). In one embodiment of a depth map, each depth pixel defines the position in the viewpoint's Z-axis where its corresponding two-dimensional pixel is located. In some embodiments, a depth map is composed of pixels wherein each pixel is defined by a value (e.g., 0-255). For example, the "0" value represents pixels that are located at the most distant place in a "three dimensional" scene and the "255" value represents pixels that are located closest to a viewpoint (e.g., a camera, an optical sensor, a depth camera sensor) in the "three dimensional" scene. In other embodiments, a depth map represents the distance between an object in a scene and the plane of the viewpoint. In some embodiments, the depth map includes information about the relative depth of various features of an object of interest in view of the depth camera (e.g., the relative depth of eyes, nose, mouth, ears of a user's face). In some embodiments, the depth map includes information that enables the device to determine contours of the object of interest in a z direction.

Device **100** optionally also includes one or more contact intensity sensors **165**. FIG. **1**A shows a contact intensity sensor coupled to intensity sensor controller **159** in I/O subsystem **106**. Contact intensity sensor **165** optionally includes one or more piezoresistive strain gauges, capacitive force sensors, electric force sensors, piezoelectric force sensors, optical force sensors, capacitive touch-sensitive surfaces, or other intensity sensors (e.g., sensors used to measure the force (or pressure) of a contact on a touch-sensitive surface). Contact intensity sensor **165** receives contact intensity information (e.g., pressure information or a proxy for pressure information) from the environment. In some embodiments, at least one contact intensity sensor is collocated with, or proximate to, a touch-sensitive surface (e.g., touch-sensitive display system **112**). In some embodiments, at least one contact intensity sensor is located on the back of device **100**, opposite touch screen display **112**, which is located on the front of device **100**.

Device **100** optionally also includes one or more proximity sensors **166**. FIG. **1**A shows proximity sensor **166** coupled to peripherals interface **118**. Alternately, proximity sensor **166** is, optionally, coupled to input controller **160** in I/O subsystem **106**. Proximity sensor **166** optionally performs as described in U.S. patent application Ser. No. 11/241,839, "Proximity Detector In Handheld Device"; Ser. No. 11/240,788, "Proximity Detector In Handheld Device"; Ser. No. 11/620,702, "Using Ambient Light Sensor To Augment Proximity Sensor Output"; Ser. No. 11/586,862, "Automated Response To And Sensing Of User Activity In Portable Devices"; and Ser. No. 11/638,251, "Methods And Systems For Automatic Configuration Of Peripherals," which are hereby incorporated by reference in their entirety. In some embodiments, the proximity sensor turns off and disables touch screen **112** when the multifunction device is placed near the user's ear (e.g., when the user is making a phone call).

Device **100** optionally also includes one or more tactile output generators **167**. FIG. **1**A shows a tactile output generator coupled to haptic feedback controller **161** in I/O subsystem **106**. Tactile output generator **167** optionally includes one or more electroacoustic devices such as speakers or other audio components and/or electromechanical devices that convert energy into linear motion such as a motor, solenoid, electroactive polymer, piezoelectric actuator, electrostatic actuator, or other tactile output generating component (e.g., a component that converts electrical signals into tactile outputs on the device). Contact intensity sensor **165** receives tactile feedback generation instructions from haptic feedback module **133** and generates tactile outputs on device **100** that are capable of being sensed by a user of device **100**. In some embodiments, at least one tactile output generator is collocated with, or proximate to, a touch-sensitive surface (e.g., touch-sensitive display system **112**) and, optionally, generates a tactile output by moving the touch-sensitive surface vertically (e.g., in/out of a surface of device **100**) or laterally (e.g., back and forth in the same plane as a surface of device **100**). In some embodiments, at least one tactile output generator sensor is located on the back of device **100**, opposite touch screen display **112**, which is located on the front of device **100**.

Device **100** optionally also includes one or more accelerometers **168**. FIG. **1**A shows accelerometer **168** coupled to peripherals interface **118**. Alternately, accelerometer **168** is, optionally, coupled to an input controller **160** in I/O subsystem **106**. Accelerometer **168** optionally performs as described in U.S. Patent Publication No. 20050190059, "Acceleration-based Theft Detection System for Portable Electronic Devices," and U.S. Patent Publication No. 20060017692, "Methods And Apparatuses For Operating A Portable Device Based On An Accelerometer," both of which are incorporated by reference herein in their entirety. In some embodiments, information is displayed on the touch screen display in a portrait view or a landscape view based on an analysis of data received from the one or more accelerometers. Device **100** optionally includes, in addition to accelerometer(s) **168**, a magnetometer and a GPS (or GLONASS or other global navigation system) receiver for obtaining information concerning the location and orientation (e.g., portrait or landscape) of device **100**.

In some embodiments, the software components stored in memory **102** include operating system **126**, communication module (or set of instructions) **128**, contact/motion module (or set of instructions) **130**, graphics module (or set of instructions) **132**, text input module (or set of instructions) **134**, Global Positioning System (GPS) module (or set of instructions) **135**, and applications (or sets of instructions) **136**. Furthermore, in some embodiments, memory **102** (FIG. **1**A) or **370** (FIG. **3**) stores device/global internal state **157**, as shown in FIGS. **1**A and **3**. Device/global internal state **157** includes one or more of: active application state, indicating which applications, if any, are currently active; display state, indicating what applications, views or other information occupy various regions of touch screen display **112**; sensor state, including information obtained from the device's various sensors and input control devices **116**; and location information concerning the device's location and/or attitude.

Operating system 126 (e.g., Darwin, RTXC, LINUX, UNIX, OS X, iOS, WINDOWS, or an embedded operating system such as VxWorks) includes various software components and/or drivers for controlling and managing general system tasks (e.g., memory management, storage device control, power management, etc.) and facilitates communication between various hardware and software components.

Communication module 128 facilitates communication with other devices over one or more external ports 124 and also includes various software components for handling data received by RF circuitry 108 and/or external port 124. External port 124 (e.g., Universal Serial Bus (USB), FIREWIRE, etc.) is adapted for coupling directly to other devices or indirectly over a network (e.g., the Internet, wireless LAN, etc.). In some embodiments, the external port is a multi-pin (e.g., 30-pin) connector that is the same as, or similar to and/or compatible with, the 30-pin connector used on iPod® (trademark of Apple Inc.) devices.

Contact/motion module 130 optionally detects contact with touch screen 112 (in conjunction with display controller 156) and other touch-sensitive devices (e.g., a touchpad or physical click wheel). Contact/motion module 130 includes various software components for performing various operations related to detection of contact, such as determining if contact has occurred (e.g., detecting a finger-down event), determining an intensity of the contact (e.g., the force or pressure of the contact or a substitute for the force or pressure of the contact), determining if there is movement of the contact and tracking the movement across the touch-sensitive surface (e.g., detecting one or more finger-dragging events), and determining if the contact has ceased (e.g., detecting a finger-up event or a break in contact). Contact/motion module 130 receives contact data from the touch-sensitive surface. Determining movement of the point of contact, which is represented by a series of contact data, optionally includes determining speed (magnitude), velocity (magnitude and direction), and/or an acceleration (a change in magnitude and/or direction) of the point of contact. These operations are, optionally, applied to single contacts (e.g., one finger contacts) or to multiple simultaneous contacts (e.g., "multitouch"/multiple finger contacts). In some embodiments, contact/motion module 130 and display controller 156 detect contact on a touchpad.

In some embodiments, contact/motion module 130 uses a set of one or more intensity thresholds to determine whether an operation has been performed by a user (e.g., to determine whether a user has "clicked" on an icon). In some embodiments, at least a subset of the intensity thresholds are determined in accordance with software parameters (e.g., the intensity thresholds are not determined by the activation thresholds of particular physical actuators and can be adjusted without changing the physical hardware of device 100). For example, a mouse "click" threshold of a trackpad or touch screen display can be set to any of a large range of predefined threshold values without changing the trackpad or touch screen display hardware. Additionally, in some implementations, a user of the device is provided with software settings for adjusting one or more of the set of intensity thresholds (e.g., by adjusting individual intensity thresholds and/or by adjusting a plurality of intensity thresholds at once with a system-level click "intensity" parameter).

Contact/motion module 130 optionally detects a gesture input by a user. Different gestures on the touch-sensitive surface have different contact patterns (e.g., different motions, timings, and/or intensities of detected contacts). Thus, a gesture is, optionally, detected by detecting a particular contact pattern. For example, detecting a finger tap gesture includes detecting a finger-down event followed by detecting a finger-up (liftoff) event at the same position (or substantially the same position) as the finger-down event (e.g., at the position of an icon). As another example, detecting a finger swipe gesture on the touch-sensitive surface includes detecting a finger-down event followed by detecting one or more finger-dragging events, and subsequently followed by detecting a finger-up (liftoff) event.

Graphics module 132 includes various known software components for rendering and displaying graphics on touch screen 112 or other display, including components for changing the visual impact (e.g., brightness, transparency, saturation, contrast, or other visual property) of graphics that are displayed. As used herein, the term "graphics" includes any object that can be displayed to a user, including, without limitation, text, web pages, icons (such as user-interface objects including soft keys), digital images, videos, animations, and the like.

In some embodiments, graphics module 132 stores data representing graphics to be used. Each graphic is, optionally, assigned a corresponding code. Graphics module 132 receives, from applications etc., one or more codes specifying graphics to be displayed along with, if necessary, coordinate data and other graphic property data, and then generates screen image data to output to display controller 156.

Haptic feedback module 133 includes various software components for generating instructions used by tactile output generator(s) 167 to produce tactile outputs at one or more locations on device 100 in response to user interactions with device 100.

Text input module 134, which is, optionally, a component of graphics module 132, provides soft keyboards for entering text in various applications (e.g., contacts 137, e-mail 140, IM 141, browser 147, and any other application that needs text input).

GPS module 135 determines the location of the device and provides this information for use in various applications (e.g., to telephone 138 for use in location-based dialing; to camera 143 as picture/video metadata; and to applications that provide location-based services such as weather widgets, local yellow page widgets, and map/navigation widgets).

Applications 136 optionally include the following modules (or sets of instructions), or a subset or superset thereof:

- Contacts module 137 (sometimes called an address book or contact list);
- Telephone module 138;
- Video conference module 139;
- E-mail client module 140;
- Instant messaging (IM) module 141;
- Workout support module 142;
- Camera module 143 for still and/or video images;
- Image management module 144;
- Video player module;
- Music player module;
- Browser module 147;
- Calendar module 148;
- Widget modules 149, which optionally include one or more of: weather widget 149-1, stocks widget 149-2, calculator widget 149-3, alarm clock widget 149-4, dictionary widget 149-5, and other widgets obtained by the user, as well as user-created widgets 149-6;
- Widget creator module 150 for making user-created widgets 149-6;
- Search module 151;

Video and music player module **152**, which merges video player module and music player module;
Notes module **153**;
Map module **154**; and/or
Online video module **155**.

Examples of other applications **136** that are, optionally, stored in memory **102** include other word processing applications, other image editing applications, drawing applications, presentation applications, JAVA-enabled applications, encryption, digital rights management, voice recognition, and voice replication.

In conjunction with touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, and text input module **134**, contacts module **137** are, optionally, used to manage an address book or contact list (e.g., stored in application internal state **192** of contacts module **137** in memory **102** or memory **370**), including: adding name(s) to the address book; deleting name(s) from the address book; associating telephone number(s), e-mail address(es), physical address(es) or other information with a name; associating an image with a name; categorizing and sorting names; providing telephone numbers or e-mail addresses to initiate and/or facilitate communications by telephone **138**, video conference module **139**, e-mail **140**, or IM **141**; and so forth.

In conjunction with RF circuitry **108**, audio circuitry **110**, speaker **111**, microphone **113**, touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, and text input module **134**, telephone module **138** are optionally, used to enter a sequence of characters corresponding to a telephone number, access one or more telephone numbers in contacts module **137**, modify a telephone number that has been entered, dial a respective telephone number, conduct a conversation, and disconnect or hang up when the conversation is completed. As noted above, the wireless communication optionally uses any of a plurality of communications standards, protocols, and technologies.

In conjunction with RF circuitry **108**, audio circuitry **110**, speaker **111**, microphone **113**, touch screen **112**, display controller **156**, optical sensor **164**, optical sensor controller **158**, contact/motion module **130**, graphics module **132**, text input module **134**, contacts module **137**, and telephone module **138**, video conference module **139** includes executable instructions to initiate, conduct, and terminate a video conference between a user and one or more other participants in accordance with user instructions.

In conjunction with RF circuitry **108**, touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, and text input module **134**, e-mail client module **140** includes executable instructions to create, send, receive, and manage e-mail in response to user instructions. In conjunction with image management module **144**, e-mail client module **140** makes it very easy to create and send e-mails with still or video images taken with camera module **143**.

In conjunction with RF circuitry **108**, touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, and text input module **134**, the instant messaging module **141** includes executable instructions to enter a sequence of characters corresponding to an instant message, to modify previously entered characters, to transmit a respective instant message (for example, using a Short Message Service (SMS) or Multimedia Message Service (MMS) protocol for telephony-based instant messages or using XMPP, SIMPLE, or IMPS for Internet-based instant messages), to receive instant messages, and to view received instant messages. In some embodiments, transmitted and/or received instant messages optionally include graphics, photos, audio files, video files and/or other attachments as are supported in an MMS and/or an Enhanced Messaging Service (EMS). As used herein, "instant messaging" refers to both telephony-based messages (e.g., messages sent using SMS or MMS) and Internet-based messages (e.g., messages sent using XMPP, SIMPLE, or IMPS).

In conjunction with RF circuitry **108**, touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, text input module **134**, GPS module **135**, map module **154**, and music player module, workout support module **142** includes executable instructions to create workouts (e.g., with time, distance, and/or calorie burning goals); communicate with workout sensors (sports devices); receive workout sensor data; calibrate sensors used to monitor a workout; select and play music for a workout; and display, store, and transmit workout data.

In conjunction with touch screen **112**, display controller **156**, optical sensor(s) **164**, optical sensor controller **158**, contact/motion module **130**, graphics module **132**, and image management module **144**, camera module **143** includes executable instructions to capture still images or video (including a video stream) and store them into memory **102**, modify characteristics of a still image or video, or delete a still image or video from memory **102**.

In conjunction with touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, text input module **134**, and camera module **143**, image management module **144** includes executable instructions to arrange, modify (e.g., edit), or otherwise manipulate, label, delete, present (e.g., in a digital slide show or album), and store still and/or video images.

In conjunction with RF circuitry **108**, touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, and text input module **134**, browser module **147** includes executable instructions to browse the Internet in accordance with user instructions, including searching, linking to, receiving, and displaying web pages or portions thereof, as well as attachments and other files linked to web pages.

In conjunction with RF circuitry **108**, touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, text input module **134**, e-mail client module **140**, and browser module **147**, calendar module **148** includes executable instructions to create, display, modify, and store calendars and data associated with calendars (e.g., calendar entries, to-do lists, etc.) in accordance with user instructions.

In conjunction with RF circuitry **108**, touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, text input module **134**, and browser module **147**, widget modules **149** are mini-applications that are, optionally, downloaded and used by a user (e.g., weather widget **149-1**, stocks widget **149-2**, calculator widget **149-3**, alarm clock widget **149-4**, and dictionary widget **149-5**) or created by the user (e.g., user-created widget **149-6**). In some embodiments, a widget includes an HTML (Hypertext Markup Language) file, a CSS (Cascading Style Sheets) file, and a JavaScript file. In some embodiments, a widget includes an XML (Extensible Markup Language) file and a JavaScript file (e.g., Yahoo! Widgets).

In conjunction with RF circuitry **108**, touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, text input module **134**, and browser module **147**, the widget creator module **150** are, optionally, used by a user to create widgets (e.g., turning a user-specified portion of a web page into a widget).

In conjunction with touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, and text input module **134**, search module **151** includes executable instructions to search for text, music, sound, image, video, and/or other files in memory **102** that match one or more search criteria (e.g., one or more user-specified search terms) in accordance with user instructions.

In conjunction with touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, audio circuitry **110**, speaker **111**, RF circuitry **108**, and browser module **147**, video and music player module **152** includes executable instructions that allow the user to download and play back recorded music and other sound files stored in one or more file formats, such as MP3 or AAC files, and executable instructions to display, present, or otherwise play back videos (e.g., on touch screen **112** or on an external, connected display via external port **124**). In some embodiments, device **100** optionally includes the functionality of an MP3 player, such as an iPod (trademark of Apple Inc.).

In conjunction with touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, and text input module **134**, notes module **153** includes executable instructions to create and manage notes, to-do lists, and the like in accordance with user instructions.

In conjunction with RF circuitry **108**, touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, text input module **134**, GPS module **135**, and browser module **147**, map module **154** are, optionally, used to receive, display, modify, and store maps and data associated with maps (e.g., driving directions, data on stores and other points of interest at or near a particular location, and other location-based data) in accordance with user instructions.

In conjunction with touch screen **112**, display controller **156**, contact/motion module **130**, graphics module **132**, audio circuitry **110**, speaker **111**, RF circuitry **108**, text input module **134**, e-mail client module **140**, and browser module **147**, online video module **155** includes instructions that allow the user to access, browse, receive (e.g., by streaming and/or download), play back (e.g., on the touch screen or on an external, connected display via external port **124**), send an e-mail with a link to a particular online video, and otherwise manage online videos in one or more file formats, such as H.264. In some embodiments, instant messaging module **141**, rather than e-mail client module **140**, is used to send a link to a particular online video. Additional description of the online video application can be found in U.S. Provisional Patent Application No. 60/936,562, "Portable Multifunction Device, Method, and Graphical User Interface for Playing Online Videos," filed Jun. 20, 2007, and U.S. patent application Ser. No. 11/968,067, "Portable Multifunction Device, Method, and Graphical User Interface for Playing Online Videos," filed Dec. 31, 2007, the contents of which are hereby incorporated by reference in their entirety.

Each of the above-identified modules and applications corresponds to a set of executable instructions for performing one or more functions described above and the methods described in this application (e.g., the computer-implemented methods and other information processing methods described herein). These modules (e.g., sets of instructions) need not be implemented as separate software programs, procedures, or modules, and thus various subsets of these modules are, optionally, combined or otherwise rearranged in various embodiments. For example, video player module is, optionally, combined with music player module into a single module (e.g., video and music player module **152**, FIG. **1A**). In some embodiments, memory **102** optionally stores a subset of the modules and data structures identified above. Furthermore, memory **102** optionally stores additional modules and data structures not described above.

In some embodiments, device **100** is a device where operation of a predefined set of functions on the device is performed exclusively through a touch screen and/or a touchpad. By using a touch screen and/or a touchpad as the primary input control device for operation of device **100**, the number of physical input control devices (such as push buttons, dials, and the like) on device **100** is, optionally, reduced.

The predefined set of functions that are performed exclusively through a touch screen and/or a touchpad optionally include navigation between user interfaces. In some embodiments, the touchpad, when touched by the user, navigates device **100** to a main, home, or root menu from any user interface that is displayed on device **100**. In such embodiments, a "menu button" is implemented using a touchpad. In some other embodiments, the menu button is a physical push button or other physical input control device instead of a touchpad.

FIG. **1B** is a block diagram illustrating exemplary components for event handling in accordance with some embodiments. In some embodiments, memory **102** (FIG. **1A**) or **370** (FIG. **3**) includes event sorter **170** (e.g., in operating system **126**) and a respective application **136-1** (e.g., any of the aforementioned applications **137-151**, **155**, **380-390**).

Event sorter **170** receives event information and determines the application **136-1** and application view **191** of application **136-1** to which to deliver the event information. Event sorter **170** includes event monitor **171** and event dispatcher module **174**. In some embodiments, application **136-1** includes application internal state **192**, which indicates the current application view(s) displayed on touch-sensitive display **112** when the application is active or executing. In some embodiments, device/global internal state **157** is used by event sorter **170** to determine which application(s) is (are) currently active, and application internal state **192** is used by event sorter **170** to determine application views **191** to which to deliver event information.

In some embodiments, application internal state **192** includes additional information, such as one or more of: resume information to be used when application **136-1** resumes execution, user interface state information that indicates information being displayed or that is ready for display by application **136-1**, a state queue for enabling the user to go back to a prior state or view of application **136-1**, and a redo/undo queue of previous actions taken by the user.

Event monitor **171** receives event information from peripherals interface **118**. Event information includes information about a sub-event (e.g., a user touch on touch-sensitive display **112**, as part of a multi-touch gesture). Peripherals interface **118** transmits information it receives from I/O subsystem **106** or a sensor, such as proximity sensor **166**, accelerometer(s) **168**, and/or microphone **113** (through audio circuitry **110**). Information that peripherals interface **118** receives from I/O subsystem **106** includes information from touch-sensitive display **112** or a touch-sensitive surface.

In some embodiments, event monitor **171** sends requests to the peripherals interface **118** at predetermined intervals. In response, peripherals interface **118** transmits event information. In other embodiments, peripherals interface **118** transmits event information only when there is a significant event (e.g., receiving an input above a predetermined noise threshold and/or for more than a predetermined duration).

In some embodiments, event sorter **170** also includes a hit view determination module **172** and/or an active event recognizer determination module **173**.

Hit view determination module **172** provides software procedures for determining where a sub-event has taken place within one or more views when touch-sensitive display **112** displays more than one view. Views are made up of controls and other elements that a user can see on the display.

Another aspect of the user interface associated with an application is a set of views, sometimes herein called application views or user interface windows, in which information is displayed and touch-based gestures occur. The application views (of a respective application) in which a touch is detected optionally correspond to programmatic levels within a programmatic or view hierarchy of the application. For example, the lowest level view in which a touch is detected is, optionally, called the hit view, and the set of events that are recognized as proper inputs are, optionally, determined based, at least in part, on the hit view of the initial touch that begins a touch-based gesture.

Hit view determination module **172** receives information related to sub-events of a touch-based gesture. When an application has multiple views organized in a hierarchy, hit view determination module **172** identifies a hit view as the lowest view in the hierarchy which should handle the sub-event. In most circumstances, the hit view is the lowest level view in which an initiating sub-event occurs (e.g., the first sub-event in the sequence of sub-events that form an event or potential event). Once the hit view is identified by the hit view determination module **172**, the hit view typically receives all sub-events related to the same touch or input source for which it was identified as the hit view.

Active event recognizer determination module **173** determines which view or views within a view hierarchy should receive a particular sequence of sub-events. In some embodiments, active event recognizer determination module **173** determines that only the hit view should receive a particular sequence of sub-events. In other embodiments, active event recognizer determination module **173** determines that all views that include the physical location of a sub-event are actively involved views, and therefore determines that all actively involved views should receive a particular sequence of sub-events. In other embodiments, even if touch sub-events were entirely confined to the area associated with one particular view, views higher in the hierarchy would still remain as actively involved views.

Event dispatcher module **174** dispatches the event information to an event recognizer (e.g., event recognizer **180**). In embodiments including active event recognizer determination module **173**, event dispatcher module **174** delivers the event information to an event recognizer determined by active event recognizer determination module **173**. In some embodiments, event dispatcher module **174** stores in an event queue the event information, which is retrieved by a respective event receiver **182**.

In some embodiments, operating system **126** includes event sorter **170**. Alternatively, application **136-1** includes event sorter **170**. In yet other embodiments, event sorter **170** is a stand-alone module, or a part of another module stored in memory **102**, such as contact/motion module **130**.

In some embodiments, application **136-1** includes a plurality of event handlers **190** and one or more application views **191**, each of which includes instructions for handling touch events that occur within a respective view of the application's user interface. Each application view **191** of the application **136-1** includes one or more event recognizers **180**. Typically, a respective application view **191** includes a plurality of event recognizers **180**. In other embodiments, one or more of event recognizers **180** are part of a separate module, such as a user interface kit or a higher level object from which application **136-1** inherits methods and other properties. In some embodiments, a respective event handler **190** includes one or more of: data updater **176**, object updater **177**, GUI updater **178**, and/or event data **179** received from event sorter **170**. Event handler **190** optionally utilizes or calls data updater **176**, object updater **177**, or GUI updater **178** to update the application internal state **192**. Alternatively, one or more of the application views **191** include one or more respective event handlers **190**. Also, in some embodiments, one or more of data updater **176**, object updater **177**, and GUI updater **178** are included in a respective application view **191**.

A respective event recognizer **180** receives event information (e.g., event data **179**) from event sorter **170** and identifies an event from the event information. Event recognizer **180** includes event receiver **182** and event comparator **184**. In some embodiments, event recognizer **180** also includes at least a subset of: metadata **183**, and event delivery instructions **188** (which optionally include sub-event delivery instructions).

Event receiver **182** receives event information from event sorter **170**. The event information includes information about a sub-event, for example, a touch or a touch movement. Depending on the sub-event, the event information also includes additional information, such as location of the sub-event. When the sub-event concerns motion of a touch, the event information optionally also includes speed and direction of the sub-event. In some embodiments, events include rotation of the device from one orientation to another (e.g., from a portrait orientation to a landscape orientation, or vice versa), and the event information includes corresponding information about the current orientation (also called device attitude) of the device.

Event comparator **184** compares the event information to predefined event or sub-event definitions and, based on the comparison, determines an event or sub-event, or determines or updates the state of an event or sub-event. In some embodiments, event comparator **184** includes event definitions **186**. Event definitions **186** contain definitions of events (e.g., predefined sequences of sub-events), for example, event **1** (**187-1**), event **2** (**187-2**), and others. In some embodiments, sub-events in an event (**187**) include, for example, touch begin, touch end, touch movement, touch cancellation, and multiple touching. In one example, the definition for event **1** (**187-1**) is a double tap on a displayed object. The double tap, for example, comprises a first touch (touch begin) on the displayed object for a predetermined phase, a first liftoff (touch end) for a predetermined phase, a second touch (touch begin) on the displayed object for a predetermined phase, and a second liftoff (touch end) for a predetermined phase. In another example, the definition for event **2** (**187-2**) is a dragging on a displayed object. The dragging, for example, comprises a touch (or contact) on the displayed object for a predetermined phase, a movement of the touch across touch-sensitive display **112**, and liftoff of the touch (touch end). In some embodiments, the event also includes information for one or more associated event handlers **190**.

In some embodiments, event definition **187** includes a definition of an event for a respective user-interface object. In some embodiments, event comparator **184** performs a hit test to determine which user-interface object is associated with a sub-event. For example, in an application view in which three user-interface objects are displayed on touch-sensitive display **112**, when a touch is detected on touch-sensitive display **112**, event comparator **184** performs a hit test to determine which of the three user-interface objects is associated with the touch (sub-event). If each displayed object is associated with a respective event handler **190**, the event comparator uses the result of the hit test to determine which event handler **190** should be activated. For example, event comparator **184** selects an event handler associated with the sub-event and the object triggering the hit test.

In some embodiments, the definition for a respective event (**187**) also includes delayed actions that delay delivery of the event information until after it has been determined whether the sequence of sub-events does or does not correspond to the event recognizer's event type.

When a respective event recognizer **180** determines that the series of sub-events do not match any of the events in event definitions **186**, the respective event recognizer **180** enters an event impossible, event failed, or event ended state, after which it disregards subsequent sub-events of the touch-based gesture. In this situation, other event recognizers, if any, that remain active for the hit view continue to track and process sub-events of an ongoing touch-based gesture.

In some embodiments, a respective event recognizer **180** includes metadata **183** with configurable properties, flags, and/or lists that indicate how the event delivery system should perform sub-event delivery to actively involved event recognizers. In some embodiments, metadata **183** includes configurable properties, flags, and/or lists that indicate how event recognizers interact, or are enabled to interact, with one another. In some embodiments, metadata **183** includes configurable properties, flags, and/or lists that indicate whether sub-events are delivered to varying levels in the view or programmatic hierarchy.

In some embodiments, a respective event recognizer **180** activates event handler **190** associated with an event when one or more particular sub-events of an event are recognized. In some embodiments, a respective event recognizer **180** delivers event information associated with the event to event handler **190**. Activating an event handler **190** is distinct from sending (and deferred sending) sub-events to a respective hit view. In some embodiments, event recognizer **180** throws a flag associated with the recognized event, and event handler **190** associated with the flag catches the flag and performs a predefined process.

In some embodiments, event delivery instructions **188** include sub-event delivery instructions that deliver event information about a sub-event without activating an event handler. Instead, the sub-event delivery instructions deliver event information to event handlers associated with the series of sub-events or to actively involved views. Event handlers associated with the series of sub-events or with actively involved views receive the event information and perform a predetermined process.

In some embodiments, data updater **176** creates and updates data used in application **136-1**. For example, data updater **176** updates the telephone number used in contacts module **137**, or stores a video file used in video player module. In some embodiments, object updater **177** creates and updates objects used in application **136-1**. For example, object updater **177** creates a new user-interface object or updates the position of a user-interface object. GUI updater **178** updates the GUI. For example, GUI updater **178** prepares display information and sends it to graphics module **132** for display on a touch-sensitive display.

In some embodiments, event handler(s) **190** includes or has access to data updater **176**, object updater **177**, and GUI updater **178**. In some embodiments, data updater **176**, object updater **177**, and GUI updater **178** are included in a single module of a respective application **136-1** or application view **191**. In other embodiments, they are included in two or more software modules.

It shall be understood that the foregoing discussion regarding event handling of user touches on touch-sensitive displays also applies to other forms of user inputs to operate multifunction devices **100** with input devices, not all of which are initiated on touch screens. For example, mouse movement and mouse button presses, optionally coordinated with single or multiple keyboard presses or holds; contact movements such as taps, drags, scrolls, etc. on touchpads; pen stylus inputs; movement of the device; oral instructions; detected eye movements; biometric inputs; and/or any combination thereof are optionally utilized as inputs corresponding to sub-events which define an event to be recognized.

FIG. **2** illustrates a portable multifunction device **100** having a touch screen **112** in accordance with some embodiments. The touch screen optionally displays one or more graphics within user interface (UI) **200**. In this embodiment, as well as others described below, a user is enabled to select one or more of the graphics by making a gesture on the graphics, for example, with one or more fingers **202** (not drawn to scale in the figure) or one or more styluses **203** (not drawn to scale in the figure). In some embodiments, selection of one or more graphics occurs when the user breaks contact with the one or more graphics. In some embodiments, the gesture optionally includes one or more taps, one or more swipes (from left to right, right to left, upward and/or downward), and/or a rolling of a finger (from right to left, left to right, upward and/or downward) that has made contact with device **100**. In some implementations or circumstances, inadvertent contact with a graphic does not select the graphic. For example, a swipe gesture that sweeps over an application icon optionally does not select the corresponding application when the gesture corresponding to selection is a tap.

Device **100** optionally also include one or more physical buttons, such as "home" or menu button **204**. As described previously, menu button **204** is, optionally, used to navigate to any application **136** in a set of applications that are, optionally, executed on device **100**. Alternatively, in some embodiments, the menu button is implemented as a soft key in a GUI displayed on touch screen **112**.

In some embodiments, device **100** includes touch screen **112**, menu button **204**, push button **206** for powering the device on/off and locking the device, volume adjustment button(s) **208**, subscriber identity module (SIM) card slot **210**, headset jack **212**, and docking/charging external port **124**. Push button **206** is, optionally, used to turn the power on/off on the device by depressing the button and holding the button in the depressed state for a predefined time interval; to lock the device by depressing the button and releasing the button before the predefined time interval has elapsed; and/or to unlock the device or initiate an unlock process. In an alternative embodiment, device **100** also accepts verbal input for activation or deactivation of some functions through microphone **113**. Device **100** also, optionally, includes one or more contact intensity sensors **165** for detecting intensity of contacts on touch screen **112** and/or one or more tactile output generators **167** for generating tactile outputs for a user of device **100**.

FIG. **3** is a block diagram of an exemplary multifunction device with a display and a touch-sensitive surface in accordance with some embodiments. Device **300** need not be portable. In some embodiments, device **300** is a laptop computer, a desktop computer, a tablet computer, a multimedia player device, a navigation device, an educational device (such as a child's learning toy), a gaming system, or a control device (e.g., a home or industrial controller). Device **300** typically includes one or more processing units (CPUs) **310**, one or more network or other communications interfaces **360**, memory **370**, and one or more communication buses **320** for interconnecting these components. Communication buses **320** optionally include circuitry (sometimes called a chipset) that interconnects and controls communications between system components. Device **300** includes input/output (I/O) interface **330** comprising display **340**, which is typically a touch screen display. I/O interface **330** also optionally includes a keyboard and/or mouse (or other pointing device) **350** and touchpad **355**, tactile output generator **357** for generating tactile outputs on device **300** (e.g., similar to tactile output generator(s) **167** described above with reference to FIG. **1**A), sensors **359** (e.g., optical, acceleration, proximity, touch-sensitive, and/or contact intensity sensors similar to contact intensity sensor(s) **165** described above with reference to FIG. **1**A). Memory **370** includes high-speed random access memory, such as DRAM, SRAM, DDR RAM, or other random access solid state memory devices; and optionally includes non-volatile memory, such as one or more magnetic disk storage devices, optical disk storage devices, flash memory devices, or other non-volatile solid state storage devices. Memory **370** optionally includes one or more storage devices remotely located from CPU(s) **310**. In some embodiments, memory **370** stores programs, modules, and data structures analogous to the programs, modules, and data structures stored in memory **102** of portable multifunction device **100** (FIG. **1**A), or a subset thereof. Furthermore, memory **370** optionally stores additional programs, modules, and data structures not present in memory **102** of portable multifunction device **100**. For example, memory **370** of device **300** optionally stores drawing module **380**, presentation module **382**, word processing module **384**, website creation module **386**, disk authoring module **388**, and/or spreadsheet module **390**, while memory **102** of portable multifunction device **100** (FIG. **1**A) optionally does not store these modules.

Each of the above-identified elements in FIG. **3** is, optionally, stored in one or more of the previously mentioned memory devices. Each of the above-identified modules corresponds to a set of instructions for performing a function described above. The above-identified modules or programs (e.g., sets of instructions) need not be implemented as separate software programs, procedures, or modules, and thus various subsets of these modules are, optionally, combined or otherwise rearranged in various embodiments. In some embodiments, memory **370** optionally stores a subset of the modules and data structures identified above. Furthermore, memory **370** optionally stores additional modules and data structures not described above.

Attention is now directed towards embodiments of user interfaces that are, optionally, implemented on, for example, portable multifunction device **100**.

FIG. **4**A illustrates an exemplary user interface for a menu of applications on portable multifunction device **100** in accordance with some embodiments. Similar user interfaces are, optionally, implemented on device **300**. In some embodiments, user interface **400** includes the following elements, or a subset or superset thereof:

- Signal strength indicator(s) **402** for wireless communication(s), such as cellular and Wi-Fi signals;
- Time **404**;
- Bluetooth indicator **405**;
- Battery status indicator **406**;
- Tray **408** with icons for frequently used applications, such as:
  - Icon **416** for telephone module **138**, labeled "Phone," which optionally includes an indicator **414** of the number of missed calls or voicemail messages;
  - Icon **418** for e-mail client module **140**, labeled "Mail," which optionally includes an indicator **410** of the number of unread e-mails;
  - Icon **420** for browser module **147**, labeled "Browser;" and
  - Icon **422** for video and music player module **152**, also referred to as iPod (trademark of Apple Inc.) module **152**, labeled "iPod;" and
- Icons for other applications, such as:
  - Icon **424** for IM module **141**, labeled "Messages;"
  - Icon **426** for calendar module **148**, labeled "Calendar;"
  - Icon **428** for image management module **144**, labeled "Photos;"
  - Icon **430** for camera module **143**, labeled "Camera;"
  - Icon **432** for online video module **155**, labeled "Online Video;"
  - Icon **434** for stocks widget **149-2**, labeled "Stocks;"
  - Icon **436** for map module **154**, labeled "Maps;"
  - Icon **438** for weather widget **149-1**, labeled "Weather;"
  - Icon **440** for alarm clock widget **149-4**, labeled "Clock;"
  - Icon **442** for workout support module **142**, labeled "Workout Support;"
  - Icon **444** for notes module **153**, labeled "Notes;" and
  - Icon **446** for a settings application or module, labeled "Settings," which provides access to settings for device **100** and its various applications **136**.

It should be noted that the icon labels illustrated in FIG. **4**A are merely exemplary. For example, icon **422** for video and music player module **152** is labeled "Music" or "Music Player." Other labels are, optionally, used for various application icons. In some embodiments, a label for a respective application icon includes a name of an application corresponding to the respective application icon. In some embodiments, a label for a particular application icon is distinct from a name of an application corresponding to the particular application icon.

FIG. **4**B illustrates an exemplary user interface on a device (e.g., device **300**, FIG. **3**) with a touch-sensitive surface **451** (e.g., a tablet or touchpad **355**, FIG. **3**) that is separate from the display **450** (e.g., touch screen display **112**). Device **300** also, optionally, includes one or more contact intensity sensors (e.g., one or more of sensors **359**) for detecting intensity of contacts on touch-sensitive surface **451** and/or one or more tactile output generators **357** for generating tactile outputs for a user of device **300**.

Although some of the examples that follow will be given with reference to inputs on touch screen display **112** (where the touch-sensitive surface and the display are combined), in some embodiments, the device detects inputs on a touch-sensitive surface that is separate from the display, as shown in FIG. **4**B. In some embodiments, the touch-sensitive surface (e.g., **451** in FIG. **4**B) has a primary axis (e.g., **452** in FIG. **4**B) that corresponds to a primary axis (e.g., **453** in FIG. **4**B) on the display (e.g., **450**). In accordance with these embodiments, the device detects contacts (e.g., **460** and **462** in FIG. **4**B) with the touch-sensitive surface **451** at locations that correspond to respective locations on the display (e.g., in FIG. 4B, **460** corresponds to **468** and **462** corresponds to **470**). In this way, user inputs (e.g., contacts **460** and **462**, and movements thereof) detected by the device on the touch-sensitive surface (e.g., **451** in FIG. 4B) are used by the device to manipulate the user interface on the display (e.g., **450** in FIG. 4B) of the multifunction device when the touch-sensitive surface is separate from the display. It should be understood that similar methods are, optionally, used for other user interfaces described herein.

Additionally, while the following examples are given primarily with reference to finger inputs (e.g., finger contacts, finger tap gestures, finger swipe gestures), it should be understood that, in some embodiments, one or more of the finger inputs are replaced with input from another input device (e.g., a mouse-based input or stylus input). For example, a swipe gesture is, optionally, replaced with a mouse click (e.g., instead of a contact) followed by movement of the cursor along the path of the swipe (e.g., instead of movement of the contact). As another example, a tap gesture is, optionally, replaced with a mouse click while the cursor is located over the location of the tap gesture (e.g., instead of detection of the contact followed by ceasing to detect the contact). Similarly, when multiple user inputs are simultaneously detected, it should be understood that multiple computer mice are, optionally, used simultaneously, or a mouse and finger contacts are, optionally, used simultaneously.

FIG. **5**A illustrates exemplary personal electronic device **500**. Device **500** includes body **502**. In some embodiments, device **500** can include some or all of the features described with respect to devices **100** and **300** (e.g., FIGS. **1**A-**4**B). In some embodiments, device **500** has touch-sensitive display screen **504**, hereafter touch screen **504**. Alternatively, or in addition to touch screen **504**, device **500** has a display and a touch-sensitive surface. As with devices **100** and **300**, in some embodiments, touch screen **504** (or the touch-sensitive surface) optionally includes one or more intensity sensors for detecting intensity of contacts (e.g., touches) being applied. The one or more intensity sensors of touch screen **504** (or the touch-sensitive surface) can provide output data that represents the intensity of touches. The user interface of device **500** can respond to touches based on their intensity, meaning that touches of different intensities can invoke different user interface operations on device **500**.

Exemplary techniques for detecting and processing touch intensity are found, for example, in related applications: International Patent Application Serial No. PCT/US2013/040061, titled "Device, Method, and Graphical User Interface for Displaying User Interface Objects Corresponding to an Application," filed May 8, 2013, published as WIPO Publication No. WO/2013/169849, and International Patent Application Serial No. PCT/US2013/069483, titled "Device, Method, and Graphical User Interface for Transitioning Between Touch Input to Display Output Relationships," filed Nov. 11, 2013, published as WIPO Publication No. WO/2014/105276, each of which is hereby incorporated by reference in their entirety.

In some embodiments, device **500** has one or more input mechanisms **506** and **508**. Input mechanisms **506** and **508**, if included, can be physical. Examples of physical input mechanisms include push buttons and rotatable mechanisms. In some embodiments, device **500** has one or more attachment mechanisms. Such attachment mechanisms, if included, can permit attachment of device **500** with, for example, hats, eyewear, earrings, necklaces, shirts, jackets, bracelets, watch straps, chains, trousers, belts, shoes, purses, backpacks, and so forth. These attachment mechanisms permit device **500** to be worn by a user.

FIG. **5**B depicts exemplary personal electronic device **500**. In some embodiments, device **500** can include some or all of the components described with respect to FIGS. **1**A, **1**B, and **3**. Device **500** has bus **512** that operatively couples I/O section **514** with one or more computer processors **516** and memory **518**. I/O section **514** can be connected to display **504**, which can have touch-sensitive component **522** and, optionally, intensity sensor **524** (e.g., contact intensity sensor). In addition, I/O section **514** can be connected with communication unit **530** for receiving application and operating system data, using Wi-Fi, Bluetooth, near field communication (NFC), cellular, and/or other wireless communication techniques. Device **500** can include input mechanisms **506** and/or **508**. Input mechanism **506** is, optionally, a rotatable input device or a depressible and rotatable input device, for example. Input mechanism **508** is, optionally, a button, in some examples.

Input mechanism **508** is, optionally, a microphone, in some examples. Personal electronic device **500** optionally includes various sensors, such as GPS sensor **532**, accelerometer **534**, directional sensor **540** (e.g., compass), gyroscope **536**, motion sensor **538**, and/or a combination thereof, all of which can be operatively connected to I/O section **514**.

Memory **518** of personal electronic device **500** can include one or more non-transitory computer-readable storage mediums, for storing computer-executable instructions, which, when executed by one or more computer processors **516**, for example, can cause the computer processors to perform the techniques described below, including processes **700**, **800**, **900**, **1100**, and **1300** (FIGS. **7**-**9**, **11**, and **13**). A computer-readable storage medium can be any medium that can tangibly contain or store computer-executable instructions for use by or in connection with the instruction execution system, apparatus, or device. In some examples, the storage medium is a transitory computer-readable storage medium. In some examples, the storage medium is a non-transitory computer-readable storage medium. The non-transitory computer-readable storage medium can include, but is not limited to, magnetic, optical, and/or semiconductor storages. Examples of such storage include magnetic disks, optical discs based on CD, DVD, or Blu-ray technologies, as well as persistent solid-state memory such as flash, solid-state drives, and the like. Personal electronic device **500** is not limited to the components and configuration of FIG. **5**B, but can include other or additional components in multiple configurations.

As used here, the term "affordance" refers to a user-interactive graphical user interface object that is, optionally, displayed on the display screen of devices **100**, **300**, and/or **500** (FIGS. **1**A, **3**, and **5**A-**5**B). For example, an image (e.g., icon), a button, and text (e.g., hyperlink) each optionally constitute an affordance.

As used herein, the term "focus selector" refers to an input element that indicates a current part of a user interface with which a user is interacting. In some implementations that include a cursor or other location marker, the cursor acts as a "focus selector" so that when an input (e.g., a press input) is detected on a touch-sensitive surface (e.g., touchpad **355** in FIG. **3** or touch-sensitive surface **451** in FIG. **4**B) while the cursor is over a particular user interface element (e.g., a button, window, slider, or other user interface element), the particular user interface element is adjusted in accordance with the detected input. In some implementations that include a touch screen display (e.g., touch-sensitive display system **112** in FIG. **1**A or touch screen **112** in FIG. **4**A) that enables direct interaction with user interface elements on the touch screen display, a detected contact on the touch screen acts as a "focus selector" so that when an input (e.g., a press input by the contact) is detected on the touch screen display at a location of a particular user interface element (e.g., a button, window, slider, or other user interface element), the particular user interface element is adjusted in accordance with the detected input. In some implementations, focus is moved from one region of a user interface to another region of the user interface without corresponding movement of a cursor or movement of a contact on a touch screen display (e.g., by using a tab key or arrow keys to move focus from one button to another button); in these implementations, the focus selector moves in accordance with movement of focus between different regions of the user interface. Without regard to the specific form taken by the focus selector, the focus selector is generally the user interface element (or contact on a touch screen display) that is controlled by the user so as to communicate the user's intended interaction with the user interface (e.g., by indicating, to the device, the element of the user interface with which the user is intending to interact). For example, the location of a focus selector (e.g., a cursor, a contact, or a selection box) over a respective button while a press input is detected on the touch-sensitive surface (e.g., a touchpad or touch screen) will indicate that the user is intending to activate the respective button (as opposed to other user interface elements shown on a display of the device).

As used in the specification and claims, the term "characteristic intensity" of a contact refers to a characteristic of the contact based on one or more intensities of the contact. In some embodiments, the characteristic intensity is based on multiple intensity samples. The characteristic intensity is, optionally, based on a predefined number of intensity samples, or a set of intensity samples collected during a predetermined time period (e.g., 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10 seconds) relative to a predefined event (e.g., after detecting the contact, prior to detecting liftoff of the contact, before or after detecting a start of movement of the contact, prior to detecting an end of the contact, before or after detecting an increase in intensity of the contact, and/or before or after detecting a decrease in intensity of the contact). A characteristic intensity of a contact is, optionally, based on one or more of: a maximum value of the intensities of the contact, a mean value of the intensities of the contact, an average value of the intensities of the contact, a top 10 percentile value of the intensities of the contact, a value at the half maximum of the intensities of the contact, a value at the 90 percent maximum of the intensities of the contact, or the like. In some embodiments, the duration of the contact is used in determining the characteristic intensity (e.g., when the characteristic intensity is an average of the intensity of the contact over time). In some embodiments, the characteristic intensity is compared to a set of one or more intensity thresholds to determine whether an operation has been performed by a user. For example, the set of one or more intensity thresholds optionally includes a first intensity threshold and a second intensity threshold. In this example, a contact with a characteristic intensity that does not exceed the first threshold results in a first operation, a contact with a characteristic intensity that exceeds the first intensity threshold and does not exceed the second intensity threshold results in a second operation, and a contact with a characteristic intensity that exceeds the second threshold results in a third operation. In some embodiments, a comparison between the characteristic intensity and one or more thresholds is used to determine whether or not to perform one or more operations (e.g., whether to perform a respective operation or forgo performing the respective operation), rather than being used to determine whether to perform a first operation or a second operation.

In some embodiments, a portion of a gesture is identified for purposes of determining a characteristic intensity. For example, a touch-sensitive surface optionally receives a continuous swipe contact transitioning from a start location and reaching an end location, at which point the intensity of the contact increases. In this example, the characteristic intensity of the contact at the end location is, optionally, based on only a portion of the continuous swipe contact, and not the entire swipe contact (e.g., only the portion of the swipe contact at the end location). In some embodiments, a smoothing algorithm is, optionally, applied to the intensities of the swipe contact prior to determining the characteristic intensity of the contact. For example, the smoothing algorithm optionally includes one or more of: an unweighted sliding-average smoothing algorithm, a triangular smoothing algorithm, a median filter smoothing algorithm, and/or an exponential smoothing algorithm. In some circumstances, these smoothing algorithms eliminate narrow spikes or dips in the intensities of the swipe contact for purposes of determining a characteristic intensity.

The intensity of a contact on the touch-sensitive surface is, optionally, characterized relative to one or more intensity thresholds, such as a contact-detection intensity threshold, a light press intensity threshold, a deep press intensity threshold, and/or one or more other intensity thresholds. In some embodiments, the light press intensity threshold corresponds to an intensity at which the device will perform operations typically associated with clicking a button of a physical mouse or a trackpad. In some embodiments, the deep press intensity threshold corresponds to an intensity at which the device will perform operations that are different from operations typically associated with clicking a button of a physical mouse or a trackpad. In some embodiments, when a contact is detected with a characteristic intensity below the light press intensity threshold (e.g., and above a nominal contact-detection intensity threshold below which the contact is no longer detected), the device will move a focus selector in accordance with movement of the contact on the touch-sensitive surface without performing an operation associated with the light press intensity threshold or the deep press intensity threshold. Generally, unless otherwise stated, these intensity thresholds are consistent between different sets of user interface figures.

An increase of characteristic intensity of the contact from an intensity below the light press intensity threshold to an intensity between the light press intensity threshold and the deep press intensity threshold is sometimes referred to as a "light press" input. An increase of characteristic intensity of the contact from an intensity below the deep press intensity threshold to an intensity above the deep press intensity threshold is sometimes referred to as a "deep press" input. An increase of characteristic intensity of the contact from an intensity below the contact-detection intensity threshold to an intensity between the contact-detection intensity threshold and the light press intensity threshold is sometimes referred to as detecting the contact on the touch-surface. A decrease of characteristic intensity of the contact from an intensity above the contact-detection intensity threshold to an intensity below the contact-detection intensity threshold is sometimes referred to as detecting liftoff of the contact from the touch-surface. In some embodiments, the contact-detection intensity threshold is zero. In some embodiments, the contact-detection intensity threshold is greater than zero.

In some embodiments described herein, one or more operations are performed in response to detecting a gesture that includes a respective press input or in response to detecting the respective press input performed with a respective contact (or a plurality of contacts), where the respective press input is detected based at least in part on detecting an increase in intensity of the contact (or plurality of contacts) above a press-input intensity threshold. In some embodiments, the respective operation is performed in response to detecting the increase in intensity of the respective contact above the press-input intensity threshold (e.g., a "down stroke" of the respective press input). In some embodiments, the press input includes an increase in intensity of the respective contact above the press-input intensity threshold and a subsequent decrease in intensity of the contact below the press-input intensity threshold, and the respective operation is performed in response to detecting the subsequent decrease in intensity of the respective contact below the press-input threshold (e.g., an "up stroke" of the respective press input).

In some embodiments, the device employs intensity hysteresis to avoid accidental inputs sometimes termed "jitter," where the device defines or selects a hysteresis intensity threshold with a predefined relationship to the press-input intensity threshold (e.g., the hysteresis intensity threshold is X intensity units lower than the press-input intensity threshold or the hysteresis intensity threshold is 75%, 90%, or some reasonable proportion of the press-input intensity threshold). Thus, in some embodiments, the press input includes an increase in intensity of the respective contact above the press-input intensity threshold and a subsequent decrease in intensity of the contact below the hysteresis intensity threshold that corresponds to the press-input intensity threshold, and the respective operation is performed in response to detecting the subsequent decrease in intensity of the respective contact below the hysteresis intensity threshold (e.g., an "up stroke" of the respective press input). Similarly, in some embodiments, the press input is detected only when the device detects an increase in intensity of the contact from an intensity at or below the hysteresis intensity threshold to an intensity at or above the press-input intensity threshold and, optionally, a subsequent decrease in intensity of the contact to an intensity at or below the hysteresis intensity, and the respective operation is performed in response to detecting the press input (e.g., the increase in intensity of the contact or the decrease in intensity of the contact, depending on the circumstances).

For ease of explanation, the descriptions of operations performed in response to a press input associated with a press-input intensity threshold or in response to a gesture including the press input are, optionally, triggered in response to detecting either: an increase in intensity of a contact above the press-input intensity threshold, an increase in intensity of a contact from an intensity below the hysteresis intensity threshold to an intensity above the press-input intensity threshold, a decrease in intensity of the contact below the press-input intensity threshold, and/or a decrease in intensity of the contact below the hysteresis intensity threshold corresponding to the press-input intensity threshold. Additionally, in examples where an operation is described as being performed in response to detecting a decrease in intensity of a contact below the press-input intensity threshold, the operation is, optionally, performed in response to detecting a decrease in intensity of the contact below a hysteresis intensity threshold corresponding to, and lower than, the press-input intensity threshold.

Attention is now directed towards embodiments of user interfaces ("UI") and associated processes that are implemented on an electronic device, such as portable multifunction device **100**, device **300**, or device **500**.

FIGS. **6**A-**6**BJ illustrate exemplary user interfaces for altering visual content in media in accordance with some embodiments. The user interfaces in these figures are used to illustrate the processes described below, including the processes in FIGS. **7**, **8**, and **9**. While the examples in FIGS. **6**A-**6**BJ are described with respect to touch inputs on a touch-sensitive surface, it should be understood that taps, long presses, press-and-holds, swipes and other touch gestures could be replaced with other inputs directed to the relevant user interface elements. For example a tap could be replaced by a mouse click, a swipe could be replaced with a click and drag, a double tap could be replaced with a double click, and/or a long press (and/or press-and-hold) could be replaced with a right click or a click while holding down a modifier key. Similarly, air gestures such as a pinch of two fingers together or a touch of a finger to a hand could replace a tap, while a pinch of two fingers together followed by movement could replace a touch and drag, a double pinch could replace a double tap, and a long pinch could replace a long tap or tap and hold. In some embodiments, the location in the user interface to which an input is directed is determined based on direct touch (e.g., a tap, double-tap, long press, press-and-hold, or swipe on a user interface element), but the location to which an input is directed could also be determined based on other indications of user intent such as the location of a displayed cursor or the location toward which a gaze of a user is directed.

FIG. **6**A illustrates computer system **600** (e.g., an electronic device) displaying a camera user interface, which includes live preview **630** that optionally extends from the top of the display of computer system **600** to the bottom of the display of computer system **600**. In some embodiments, computer system **600** optionally includes one or more features of device **100**, device **300**, or device **500**. In some embodiments, computer system **600** is a tablet, phone, laptop, desktop, and/or camera.

Live preview **630** is a representation of a field-of-view of one or more cameras of computer system **600** ("FOV"). In some embodiments, live preview **630** is a representation of a partial FOV. In some embodiments, live preview **630** is based on images detected by one or more camera sensors. In some embodiments, computer system **600** captures images using multiple camera sensors and combines them to display live preview **630**. In some embodiments, computer system **600** captures images using a single camera sensor to display live preview **630**.

The camera user interface of FIG. **6**A includes indicator region **602** and control region **606**, which are positioned with respect to live preview **630** such that indicators and controls can be displayed concurrently with live preview **630**. Camera display region **604** is substantially not overlaid with indicators and/or controls. As illustrated in FIG. **6**A, the camera user interface includes visual boundary **608** that indicates the boundary between indicator region **602** and camera display region **604** and the boundary between camera display region **604** and control region **606**.

As illustrated in FIG. **6**A, indicator region **602** includes indicators, such as flash indicator **602***a*, modes-to-settings indicator **602***b*, and animated image indicator **602***c*. Flash indicator **602***a* indicates whether a flash mode is on (e.g., active), off (e.g., inactive), or in another mode (e.g., automatic mode). In FIG. **6**A, flash indicator **602***a* indicates that the flash mode is off, so a flash operation will not be used when computer system **600** is capturing media. Moreover, modes-to-settings indicator **602***b*, when selected, causes computer system **600** to replace camera mode controls **620** with camera settings controls for setting multiple settings for the currently selected camera mode (e.g., photo camera mode in FIG. **6**A). Animated image indicator **602***c* indicates whether the camera is configured to capture a single image and/or multiple images (e.g., in response to detecting a request to capture media). In some embodiments, indicator region **602** is overlaid onto live preview **630** and, optionally, includes a colored (e.g., gray; translucent) overlay.

As illustrated in FIG. **6**A, camera display region **604** includes live preview **630** and zoom controls (e.g., affordances) **622**. Zoom controls **622** include 0.5× zoom control **622***a,* 1× zoom control **622***b*, and 2× zoom control **622***c*. As illustrated in FIG. **6**A, 1× zoom control **622***b* is enlarged compared to the other zoom controls, which indicates that 1× zoom control **622***b* is selected and that computer system **600** is displaying live preview **630** at a "1×" zoom level. In some embodiments, computer system **600** displays 1× zoom control **622***b* as being selected by displaying 1× zoom control **622***b* in a different color than the other zoom controls **622**.

As illustrated in FIG. **6**A, control region **606** includes camera mode controls **620**, shutter control **610**, camera switcher control **614**, and a representation of media collection **612**. In FIG. **6**A, camera mode controls **620***a*-**620***e* are displayed, which includes panoramic mode control **620***a*, portrait mode control **620***b*, photo mode control **620***c*, video mode control **620***d*, and cinematic video mode control **620***e*. As illustrated in FIG. **6**A, photo mode control **620***c* is selected, which is indicated by photo mode control **620***c* being bolded. When photo mode control **620***c* is selected, computer system **600** initiates capture of (e.g., and/or captures) photo media (e.g., a still photo) in response to computer system **600** detecting an input directed to shutter control **610**. The photo media that is captured by computer system **600** is representative of live preview **630** that is displayed when the input is directed to shutter control **610**. In some embodiments, in response to detecting an input directed to panoramic mode control **620***a*, computer system **600** initiates capture of panoramic media (e.g., a panoramic photo). In some embodiments, in response to detecting an input directed to portrait mode control **620***b*, computer system **600** initiates capture of portrait media (e.g., a still photo, a still photo having a bokeh applied). In some embodiments, in response to detecting an input directed to video mode control **620***d*, computer system **600** initiates capture of video media (e.g., a video). In some embodiments, the indicators and/or controls displayed on the camera user interface are based on the mode that is selected (e.g., and/or the mode that computer system **600** is configured to operate in based on the selected camera mode).

At FIG. **6**A, shutter control **610**, when activated, causes computer system **600** to capture media (e.g., a photo when shutter control **610** is activated in FIG. **6**A), using the one or more camera sensors, based on the current state of live preview **630** and the current state of the camera application (e.g., which camera mode is selected). The captured media is stored locally at computer system **600** and/or transmitted to a remote server for storage. Camera switcher control **614**, when activated, causes computer system **600** to switch to showing the field-of-view of a different camera in live preview **630**, such as by switching between a rear-facing camera sensor and a front-facing camera sensor. The representation of media collection **612** illustrated in FIG. **6**A is a representation of media (e.g., an image, a video) that was most recently captured by computer system **600**. In some embodiments, in response to detecting an input directed to media collection **612**, computer system **600** displays a similar user interface to the user interface illustrated in FIG. **7** (discussed below). In some embodiments, indicator region **602** is overlaid onto live preview **630** and, optionally, includes a colored (e.g., gray; translucent) overlay.

As discussed above, FIGS. **6**A-**6**BJ illustrate exemplary user interfaces for altering visual content in accordance with some embodiments. In particular, FIGS. **6**A-**6**AC illustrate an exemplary embodiment where a synthetic (e.g., simulated, computer-generated) depth-of-field effect is applied to visual content of media that is currently being captured. The synthetic depth-of-field effect is applied automatically (e.g., not in response to one or more inputs) and/or in response to a user input. When the synthetic depth-of-field effect is applied automatically, computer system **600** makes one or more determinations based on a set of criteria to determine how the synthetic depth-of-field effect is applied and applies the synthetic depth-of-field effect (e.g., without detecting an input to apply the synthetic depth-of-field effect). When the synthetic depth-of-field effect is applied in response to a user input, computer system **600** detects an input and applies the synthetic depth-of-field effect based on the type of input that was detected.

As illustrated in FIG. **6**A, computer system **600** displays live preview **630** that includes John **632** and Jane **634**. As shown by live preview **630**, John **632** is positioned closer to one or more rear-facing cameras of computer system **600** than Jane **634**. Live preview **630** of FIG. **6**A is displayed without a synthetic depth-of-field effect applied. However, it should be understood that live preview **630** of FIG. **6**A is displayed with a natural depth-of-field effect.

As used herein, a natural depth-of-field is different from the synthetic depth-of-field effect. The natural depth-of-field effect is created based on the size of the aperture and focal length of the one or more cameras capturing the scene along with the distance between subjects (e.g., people, animals, objects) in the scene and the one or more cameras. Therefore, the natural depth-of-field effect is directly limited by the physical specification(s) (e.g., focal length, size of the aperture) of the one or more cameras used to capture the scene. However, the synthetic depth-of-field effect is a computer-generated depth-of-field effect (e.g., via software) and is not strictly limited by the physical specification(s) of the one or more cameras and/or the distance between the subjects in the scene and the one or more cameras.

Thus, applying the synthetic depth-of-field effect can have distinct advantages over only applying a natural depth-of-field effect to media. For instance, applying the synthetic depth-of-field effect has an advantage over only applying a natural depth-of-field effect because the synthetic depth-of-field effect can be applied and adjusted in more ways during the capture of the media (e.g., in real-time) (e.g., while adjusting the natural depth-of-field effect is limited by the physical specifications of the one or more cameras). In addition, the synthetic depth-of-field effect provides an advantage because the hardware (e.g., one or more cameras) of computer system **600** do not have to be switched in order to apply a particular depth-of-field effect (e.g., and/or to replace a depth-of-field effect that has one type of tracking during a portion of a video with a depth-of-field effect that has another type of tracking). In some embodiments, the type of tracking with regards to a depth-of-field effect includes emphasizing a particular subject relative to one or more other subjects in the media (e.g., for the duration of the media, for a certain portion of the duration of the media), emphasizing subjects at a particular location of the media relative other subjects in the media, etc.

As illustrated in FIGS. **6**A-**6**BJ, the synthetic depth-of-field effect of a scene (e.g., **630**, **640**, and/or **660**) being displayed by computer system **600** is shown via shading (e.g., white, gray, black). A portion of the scene that is illustrated with darker shading has a greater amount of synthetic blur (e.g., synthetic depth-of-field effect) than a portion of the scene that has lighter shading. It should be understood that the shading shown in FIGS. **6**A-**6**BJ does not represent an exact/accurate representation of the synthetic depth-of-field effect that would be applied to the scene depicted in these figures. However, the shading shown in FIGS. **6**A-**6**BJ are provided to explain how the synthetic depth-of-field effect is applied and/or altered with respect to subjects in the scene automatically and/or in response to user inputs. As shown in FIG. **6**A, live preview **630** is not shaded (e.g., is white), which indicates that live preview **630** has only the blur caused by the natural depth-of-field effect. At FIG. **6**A, computer system **600** detects rightward swipe input **650***a***1** on live preview **630** and/or a tap input **650***a***2** on cinematic video mode control **620***e*.

At FIG. **6**B, in response to detecting rightward swipe input **650***a***1** and/or tap input **650***a***2**, computer system **600** moves camera mode controls **620** to the right so that cinematic video mode control **620***e* is displayed in the middle of the camera user interface. At FIG. **6**B, computer system **600** displays cinematic video mode control **620***e* as being selected (e.g., bolds) and ceases to display photo mode control **620***a* as being selected. Moreover, in response to detecting rightward swipe input **650***a*, computer system **600** is transitioned from being configured to operate in the photo camera mode to a cinematic video camera mode. In some embodiments, computer system **600** detects a leftward swipe input while cinematic video mode control **620***e* is displayed as being selected and, in response to detecting the leftward swipe input (e.g., in opposite direction of rightward swipe input **650***a***1**), computer system **600** moves the camera mode controls to the left so that photo mode control **620***c* is displayed as being selected.

While computer system **600** is operating in the cinematic video camera mode, computer system **600** applies a synthetic depth-of-field effect. In some embodiments, certain camera modes employ a synthetic depth-of-field effect (e.g., cinematic video camera mode) while other camera modes do not employ a synthetic depth-of-field effect (e.g., photo mode, portrait mode, video mode). In some embodiments, synthetic depth-of-field can be manually enabled or disabled for any given camera mode. At FIG. **6**B, the applied, synthetic depth-of-field effect emphasizes John **632** relative to Jane **634** (e.g., makes John appear more prominent than Jane by virtue of being less blurred), which can be seen via live preview **630** that shows John **632** and the area around John **632** being shaded lighter than Jane **634** and the area around Jane **634**. In particular, John **632** is not shaded in live preview **630**, which indicates John **632** is being displayed with only the natural blur, if any, that is created by the natural depth-of-field effect of the one or more cameras of computer system **600**. Moreover, John **632** not being shaded in live preview **630** indicates that the synthetic depth-of-field effect is not causing a synthetic blur to be applied to John **632**. On the other hand, Jane **634** is displayed with shading (e.g., a darker than John **632**) because computer system **600** is applying a synthetic blur to Jane **634** via the synthetic depth-of-field effect that is being applied at FIG. **6**B. In some embodiments, the natural blur less visually prominent (or has less blur) than some of the blur that is displayed when applying synthetic depth-of-field effect.

As illustrated in FIG. **6**B, computer system **600** displays primary subject indicator **672***a* around the head of John **632** and secondary subject indicator **674***b* around the head of Jane **634**. Primary subject indicator **672***a* is displayed around the head of John **632** because John **632** is being emphasized via the applied synthetic depth-of-field effect. Secondary subject indicator **674***b* is displayed around the head of Jane **634** because Jane **634** is not being emphasized via the applied synthetic depth-of-field effect. Thus, at FIG. **6**B, computer system **600** displays different indicators to distinguish the subject(s) who are being emphasized by the synthetic depth-of-field effect from the subject(s) who are not being emphasized by the synthetic depth-of-field effect. In some embodiments, secondary subject indicator **674***b* is displayed around the head of Jane **634** because computer system **600** has enough visual content to track and/or focus on (and/or apply a synthetic depth-of-field effect to emphasize) Jane **634**. In some embodiments, if computer system **600** does not have enough visual content to track and/or focus on Jane **634**, a secondary subject indicator is not displayed around the head of Jane **634** (and/or a secondary subject indicator that corresponds to Jane **634** is not displayed).

As illustrated in FIG. **6**B, different portions of the scene shown in live preview **630** have different levels of blur applied. For instance, the tree and grass in live preview **630** of FIG. **6**B is illustrated with less detail than the tree and grass in live preview **630** of FIG. **6**A, which indicates that the background, foreground, and/or different portions of the scene are also blurred (e.g., not only the subjects in the scene). Moreover, portions of the background of the scene in live preview **630** are displayed with more blur (e.g., darker shading) than the subjects (e.g., John **632** and Jane **634**) in live preview **630** after the synthetic depth-of-field effect is applied.

In addition to applying the synthetic depth-of-field effect, in response to detecting rightward swipe input **650***a***1** and/or tap input **650***a***2**, computer system **600** expands live preview **630** such that live preview **630** of FIG. **6**B takes up more of the area of computer system **600** than live preview **630** of FIG. **6**A. In response to detecting rightward swipe input **650***a***1** and/or tap input **650***a***2**, computer system **600** continues to display flash indicator **602***a* and ceases to display modes-to-settings indicator **602***b* and animated image indicator **602***c* of FIG. **6**A in indicator region **602** of FIG. **6**B. As illustrated in FIG. **6**B, computer system **600** displays elapsed time indicator **602***d* at the position that modes-to-settings indicator **602***b* was previously displayed in FIG. **6**A. In addition, computer system **600** displays depth indicator **602***e* in the place of animated image indicator **602***c*. In some embodiments, in response to receiving an input directed to depth indicator **602***e*, computer system **600** displays a control for adjusting a bokeh effect that is applied to captured media (e.g., as described below in to FIGS. **6**AD-**6**AH). In some embodiments, computer system **600** updates live preview **630** as the control for adjusting the bokeh effect is changed (e.g., using one or more techniques as discussed below in relation to FIGS. **6**AD-**6**AF).

As illustrated in FIG. **6**B, in response to detecting rightward swipe input **650***a***1** and/or tap input **650***a***2**, computer system **600** also ceases to display 0.5× zoom control **622***a* and 2× zoom control **622***c* and maintains display of 1× zoom control **622***b*. In some embodiments, computer system **600** continues to display 1× zoom control **622***b* because of a determination that is made that the synthetic depth-of-field effect is applied only when computer system **600** is displaying a particular zoom level (e.g., 1×) and/or a range of zoom levels (e.g., 0.8× zoom-1.7× zoom). In some embodiments, computer system **600** continues to display 1× zoom control **622***b* because a set of cameras (e.g., a wide-angle camera (e.g., a camera having a f/1.6 aperture (e.g., and/or f/1.4-f/8.0 aperture) and 60°-120° field of view) is used to capture cinematic video media at the 1× zoom level (and/or a range of zoom values that includes the 1× zoom level). In some embodiments, computer system **600** ceases to display zoom control **622***a* and 2× zoom control **622***c* because computer system **600** does not a particular set of cameras (e.g., an ultra-wide angle camera (e.g., a camera having a f/2.4 aperture (e.g., and/or f/1.4-f/8.0 aperture) and greater than a 120° field of view), a telephoto camera (e.g., a camera having a f/2.0 aperture (e.g., and/or f/1.4-f/8.0 aperture) and 30°-60° field of view and/or less than a 60° field of view) to capture cinematic media at the 0.5× and/or 2× zoom level. In some embodiments, computer system **600** use of the particular set of cameras when applying the syndetic depth-of-field effect is not preferred and/or not optimal (e.g., due to the physical specifications of the particular set of cameras). At FIG. **6**B, computer system **600** detects rotation **650***b***1** and tap input **650***b***2** directed to shutter control **610**.

As illustrated in FIG. **6**C, in response to detecting rotation **650***b***1**, computer system **600** transitions the camera user interface from a portrait orientation to a landscape orientation. Notably, FIG. **6**C illustrates two computer systems. Positioned on the right side of FIG. **6**C is computer system **600**, and positioned on the left side of FIG. **6**C is computer system **690**. Both computer system **600** and computer system **690** are illustrated such that their respective user interfaces are in a landscape orientation. Computer system **600** of FIG. **6**C is capturing a video and displaying stop control **616** in response to tap input **650***b***2**. In particular, computer system **600** of FIG. **6**C is illustrated to show that the frame (e.g., live preview **630**) of the video being captured is at the one second capture duration (e.g., as indicated by elapsed time indicator **602***d*) and/or that one second has elapsed since tap input **650***b***2** was received. Computer system **690** is provided to show how a computer system would display the frame of the video being captured by computer system **600** at FIG. **6**C during playback of the video (e.g., after the full video has been captured by computer system **600**). One reason why computer system **690** is provided is to show the differences and/or similarities between how a frame of the video is shown while the video is being captured and how a frame of the video is shown after the video has been captured and is being played back. In some embodiments, computer system **600** and computer system **690** are the same system (e.g., at different points in time). In some embodiments, computer system **600** and computer system **690** are different systems (e.g., where a file representing the video captured by computer system **600** has been transferred to computer system **690** after the video is captured).

As illustrated in FIG. **6**C, computer system **690** illustrates a media playback user interface that includes previously captured media representation **640** and elapsed time indicator **646**. As alluded to above, previously captured media representation **640** is the frame that is displayed during playback of the video that is being captured by computer system **600** (e.g., the frame that is captured and shown via live preview **630**). Thus, as illustrated in FIG. **6**C, live preview **630** and previously captured media representation **640** represent the same frame of the video being captured by computer system **600** but are shown at different instances in time (e.g., during capture of the video versus during playback of the video). Accordingly, previously captured media representation **640** is shown during the one second capture duration (and/or one second mark) of the video (e.g., as indicated by elapsed time indicator **646**). Accordingly, elapsed time indicator **602***d* and elapsed time indicator **646** is displayed with the same elapsed time for the video (e.g., one second).

FIG. **6**C also includes graph **680** that includes activity tracker **680***a*, activity tracker **680***b*, and activity tracker **680***c*. Displayed within activity tracker **680***a* is John's activity level **680***a***1** (e.g., activity level for John **632**); and displayed within activity tracker **680***b* is Jane's activity level **680***b***1** (e.g., activity level for Jane **634**). The John's activity level **680***a***1** and Jane's activity level **680***b***2** are the activity levels that computer system **600** has detected and registered to correspond to the activity levels for John **632** and Jane **634** in real time. Moreover, John's activity level **680***a***1** does not represent the absolute activity level of John **632**, and Jane's activity level **680***b***2** does not represent the absolute activity level of Jane **634**. Rather, John's activity level **680***a***1** represents the relative activity of John **632** compared to the activity level of Jane **634**, and Jane's activity level **680***a***1** represents the relative activity of Jane **634** compared to the activity level of John **632**. In addition, the activity levels shown in FIG. **6**E represent activity levels that are detected/process by computer system **600** in real time, which can lagged behind the actual characteristics (e.g., physical/visual characteristics of a subject for determining whether a subject is talking, moving, gazing in a particular direction, obscured by one or more other objects in the scene, etc.) that are used to determine the activity levels of the subjects in the scene. As illustrated in FIG. **6**C, activity tracker **680***c* does not include an activity level because dog **638** has not been captured by computer system **600** (e.g., not displayed in live preview **630**) before the one second elapsed time indicated by elapsed time indicator **602***d*. Looking forward to FIG. **6**W, when dog **638** is captured by computer system **600** (e.g., dog **638** displayed in live preview **630** of FIG. **6**W), activity tracker **680***c* (e.g., in FIG. **6**C) includes dog's activity level **680***c***1** (e.g., activity level for dog **638**). The activity levels displayed in graph **680** represents a subject's activity level at a certain time (e.g., 0:00-0:45) in the video being captured by computer system **600**. As illustrated in FIG. **6**C, John's activity level **680***a***1** is higher than Jane's activity level **680***b***1** (e.g., as indicated by John's activity level **680***a***1** occupying more area than Jane's activity level **680***b***1**). At FIG. **6**C, John's activity level **680***a***1** is higher because John **632** is closer to the one or more cameras of computer system **600** (e.g., that are capturing the scene shown in live preview **630**) and because John **632** is currently talking (e.g., as indicated by the mouth of John **632** being higher). Moreover, Jane's activity level **680***b***1** is lower because Jane **634** is further way from the one or more cameras of computer system **600** and because Jane **634** is not talking (e.g., as indicated by the mouth of Jane **634** being closed).

At FIG. **6**C, in response to detecting tap input **650***b***2**, computer system **600** initiates capture of the video and a determination is made that John **632** (e.g., based on the activity level of John **632**) satisfies a set of automatic selection criteria. In particular, John **632** satisfies the set of automatic selection criteria because John **632** has had a higher activity level than Jane **634** during a duration of time that the video has been captured (e.g., as indicated by John's activity level **680***a***1** being higher than Jane's activity level **680***b***1** between zero seconds to one second). As illustrated in FIG. **6**C, because the determination is made that John **632** satisfies the set of automatic selection criteria, computer system **600** applies a synthetic depth-of-field effect to the frame of the video being captured at the one second capture duration. As shown by live preview **630** of FIG. **6**C, the synthetic depth-of-field effect that is applied emphasizes John **632** relative to Jane **634** such that John **632** is displayed with less blur than Jane **634** (e.g., as indicated by John **632** having lighter shading than Jane **634**). In addition, computer system **600** displays primary subject indicator **672***a* around the head of John **632** because John **632** is being emphasized by the synthetic depth-of-field effect and displays secondary subject indicator **674***b* around the head of Jane **634** because Jane **634** is not being emphasized by the synthetic depth-of-field effect.

As shown in FIG. **6**C, graph **680** is provided to indicate which subject is being emphasized by the synthetic depth-of-field effect at a particular instance in time. As illustrated in FIG. **6**C, graph **680** includes media capture line **680***d***1** and media playback line **680***d***2**. Media capture line **680***d***1** indicates which subject that the synthetic depth-of-field effect is emphasizing at a particular time during the capture of the video (e.g., by computer system **600**). Moreover, media playback line **680***d***2** indicates which subject that the synthetic depth-of-field effect is emphasizing at a particular time during the playback of the video (e.g., by computer system **690**). When media capture line **680***d***1** is at (or near) the center line of a respective activity tracker (e.g., media capture line **680***d***1** being on the center line of John's activity tracker **680***a* in FIG. **6**C), computer system **600** is applying the synthetic depth-of-field effect to emphasize the respective subject over other subjects in the FOV at the particular time. Likewise, when media playback line **680***d***2** is at (or near) the center line of a respective activity tracker (e.g., media playback line **680***d***2** being on the center line of John's activity tracker **680***a* in FIG. **6**C), computer system **600** is applying the synthetic depth-of-field effect to emphasize the respective subject over other subjects in the FOV at the particular time. Thus, computer system **600** displaying live preview **630** with the synthetic depth-of-field effect that emphasizes John **632** relative to Jane **634** is indicated by media capture line **680***d***1** being at the center of John's activity tracker **680***a*. And computer system **690** displaying previously captured media representation **640** with the synthetic depth-of-field effect that emphasizes John **632** relative to Jane **634** is indicated by media playback line **680***d***2** being at the center of John's activity tracker **680***a*. At particular times on graph **680** (e.g., graph **680** of FIG. **6**F from two seconds to three seconds in the media) where a media capture line **680***d***1** or media playback line **680***d***2** is not at the center of a respective media tracker, a computer system is transitioning the synthetic depth-of-field effect such that a new subject will be emphasized over the respective subject in the media.

FIGS. **6**D-**6**G illustrate an exemplary embodiment where computer system **600** automatically changes the synthetic depth-of-field effect to emphasize Jane **634** relative to John **632**. As illustrated in FIG. **6**D, computer system **600** displays the scene shown in live preview **630** (e.g., representing a frame of the video) at two seconds during the capture of the video (e.g., as indicated by elapsed time indicator **602***d*). Live preview **630** shows the eyes of John **632** looking away from the one or more cameras in FIG. **6**D, which is a change from the eyes of John **632** in live preview **630** of FIG. **6**C. Thus, the gaze of John **632** has changed from being directed towards the one or more cameras of computer system **600** in FIG. **6**C to being directed away from the one or more camera of computer system **600** in FIG. **6**D. The gaze of a subject being directed towards the one or more cameras of computer system **600** can increase the subject's activity level, which increases the probability of the subject satisfying the automatic selection criteria. However, the gaze of a subject being directed away from the one or more cameras of computer system **600** can decrease the subject's activity, which decreases the chances of the subject satisfying the automatic selection criteria. Thus, at FIG. **6**D, the activity level of John **632** has started to decrease along with the probability that John **632** will continue to satisfy the set of automatic selection criteria. In addition to the change in gaze, John **632** has stopped talking in FIG. **6**D and Jane **634** has started talking in FIG. **6**D. However, computer system **600** has not made a determination that Jane **634** has satisfied the set of automatic selection criteria because computer system **600** is detecting the activity level of the subjects in real-time (e.g., as the video is being captured) and more information (e.g., data, visual content) is needed to make this determination. As illustrated in FIG. **6**D, computer system **600** continues to apply the synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** because the determination has not be made that Jane **634** satisfies the set of automatic selection criteria (e.g., computer system **600** is still relying on the determination that was made with regards to John satisfying the set of automatic selection criteria discussed above in FIG. **6**C) during a timeframe of the video. Notably, to indicate that computer system **600** has not detected the relative change in activity levels of John **632** and Jane **634**, John's activity level **680***a***1** continues to be larger than Jane's activity level **680***b***2** in graph **680** of FIG. **6**D.

As opposed to computer system **600** of FIG. **6**D, computer system **690** of FIG. **6**D is playing back the video that was previously captured by computer system **600**. Thus, computer system **690** has enough information to make the determination that Jane **634** satisfies the set of automatic selection criteria. This is at least because computer system **690** has more (or all) of the information that corresponds to the captured video. As such, computer system **690** can make a determination as to whether a subject satisfies the set of automatic criteria during a particular timeframe of the video because computer system **690** can access the information in the previously captured video. At FIG. **6**D, computer system **690** makes a determination that Jane **634** satisfies the automatic selection criteria during a timeframe of the video and, based on this determination, automatically applies a synthetic depth-of-field effect to emphasize Jane **634** relative to John **632**. However, as illustrated in FIGS. **6**D-**6**G, computer system **690** displays an animation of previously captured media representation **640** smoothly transitioning from emphasizing John **632** relative to Jane **634** to emphasizing Jane **634** relative to John **632** (e.g., instead of a more abrupt transition). As a part of the animation, computer system **690** gradually displays John **632** with more blur and gradually displays Jane **634** with less blur such that Jane **634** is emphasized relative to John **632** (e.g., with about the same difference in blur when John **632** was emphasized relative to Jane **634** in FIG. **6**B) at FIG. **6**G.

As illustrated in FIG. **6**E, computer system **600** displays the scene shown in live preview **630** at three seconds during the capture of the video (e.g., as indicated by elapsed time indicator **602***d*). Live preview **630** continues to show the eyes of John **632** looking away from the one or more cameras in FIG. **6**E (e.g., which is unchanged from live preview **630** of FIG. **6**D). At FIG. **6**E, computer system **600** has not made a determination that Jane **634** satisfies the set of automatic selection criteria because computer system **600** needs more information (e.g., data, content) to make this determination. As illustrated in FIG. 6D, computer system **600** continues to apply the synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** because the determination has not been made that Jane **634** satisfies the set of automatic selection criteria.

As illustrated in FIG. 6F, computer system **600** displays the scene shown in live preview **630** during the capture video. While elapsed time indicator **602***d* shows three seconds in FIG. 6F, live preview **630** of FIG. 6F is displayed after live preview **630** of FIG. 6E is displayed. At FIG. 6F, computer system **600** makes a determination that Jane **634** satisfies the set of automatic selection criteria (e.g., because computer system **600** has enough information at FIG. 6F). Based on this determination, computer system **600** automatically changes the synthetic depth-of-field effect to emphasize Jane **634** relative to John **632** and displays an animation of John **632** having more blur and Jane **634** having less blur in FIGS. 6F-6G.

Notably, the animation displayed by computer system **600** in FIGS. 6F-6G includes a more abrupt and less smooth transition as compared to the transition included animation by computer system **690** in FIGS. 6E-6G. This is at least because computer system **690** was able to determine that the set of automatic selection criteria is satisfied and that the change in the synthetic depth-of-field effect to emphasize Jane **634** relative to John **632** would need to occur by four seconds (e.g., because of live preview **630** of computer system **600** being updated to show the completed change in the synthetic depth-of-field effect at FIG. 6G) into playback/capture of the video before computer system **600** was able to make this determination. At FIG. 6G, media capture line **680***d***1** and media playback line **680***d***2** of graph **680** provide context to the comparison of the animations displayed by computer system **600** and **690**. Media capture line **680***d***1** moves from John's activity tracker **680***a* to women's activity tracker **680***b* at a later time than media playback line **680***d***2**. In addition, media capture line **680***d***1** ramps down faster (e.g., shorter and more abrupt animation of FIGS. 6F-6G that was displayed by computer system **600**) than media playback line **680***d***2** (e.g., longer and more smooth animation of FIGS. 6E-6G that was displayed by computer system **600**).

As illustrated in FIG. 6G, computer system **600** and computer system **690** have applied the synthetic depth-of-field effect to emphasize Jane **634** relative to John **632** (e.g., where the shading of live preview **630** matches the shading of previously captured media representation **640**). As illustrated in FIG. 6G, along with applying the synthetic depth-of-field effect to emphasize Jane **634** relative to John **632**, computer system **600** ceases to display primary subject indicator **672***a* around the head of John **632** and secondary subject indicator **674***b* around the head of Jane **634** and displays primary subject indicator **672***b* around the head of Jane **634** and secondary subject indicator **674***a* around the head of John **632**. Primary subject indicator **672***b* indicates that Jane **634** is currently being emphasized by the synthetic depth-of-field effect, and secondary subject indicator **674***b* indicates that John **632** is not being emphasized by the synthetic depth-of-field effect. As illustrated in FIGS. 6F-6G, primary subject indicator **672***a* of FIG. 6F and primary subject indicator **672***b* of FIG. 6G have the same visual appearance (e.g., a focus bracket, same shape, and/or same object). Likewise, secondary subject indicator **674***a* of FIG. 6G and secondary subject indicator **674***b* of FIG. 6F have the same visual appearance (e.g., a rectangle, same shape, and/or same object). However, a primary subject indicator and a secondary subject indicator do not have the same visual appearance (e.g., **672***a*-**672***b* as compared to **674***a*-**674***b* in FIGS. 6F-6G). In some embodiments, computer system **600** ceases to display primary subject indicator **672***a* around the head of John **632** and secondary subject indicator **674***b* around the head of Jane **634** and/or displays primary subject indicator **672***b* around the head of Jane **634** and secondary subject indicator **674***a* around the head of John **632** during the animation of the transition of the change in the application of the synthetic depth-of-field effect.

In some embodiments, computer system **600** and computer system **690** display their respective animations differently than the animations illustrated in and discussed above in relation to FIGS. 6AD-6AG. In some embodiments, computer system **600** determines that an automatic change in the synthetic depth-of-field effect should occur (e.g., computer system **600** makes this determination at four seconds during the capture of the video). In some embodiments, computer system **600** automatically displays an animation of the change in the synthetic depth-of-field effect when the determination is made that an automatic change in the synthetic depth-of-field effect should occur (e.g., animation that is played back between four and five during the capturing of the video). In some embodiments, the animation that is displayed is fully completed, such that live preview **630** is updated to show the completion of the change in the synthetic depth-of-field effect at some time after the determination is made (e.g., at five second during the capturing of the video). In some embodiments, computer system **690** determines that an automatic change in the synthetic depth-of-field effect should occur at the time (e.g., four seconds) that computer system **600** made this determination while capturing the live video (e.g., computer system **690** makes this determination at three seconds during playback of the video). In some embodiments, computer system **690** displays an animation of the change in the synthetic depth-of-field effect when computer system **690** determines that an automatic change in the synthetic depth-of-field effect should occur (e.g., animation that is displayed between three and four seconds during the playback of the video). In some embodiments, the animation of the change in the synthetic depth-of-field effect displayed by computer system **690** is fully completed, such that previously captured media representation **640** is updated to show the completion of the change in the synthetic depth-of-field effect at the time (e.g., four seconds) that computer system **600** made its determination while capturing the live video. In some embodiments, the animation that is displayed by computer system **690** is as long as the animation that is displayed by computer system **600** (e.g., both animations are 1-5 seconds). In some embodiments, the animation displayed by computer system **690** is fully completed at a time that corresponds to an earlier time of the video than the time at which the animation displayed by computer system **600** is fully completed.

FIGS. 6H-6K illustrate an exemplary embodiment where computer system **600** automatically changes the synthetic depth-of-field effect to emphasize John **632** relative to Jane **634**. As illustrated in FIG. 6H, computer system **600** displays the scene shown in live preview **630** (e.g., representing a frame of the video) at six seconds during the capture of the video (e.g., as indicated by elapsed time indicator **602***d*). Live preview **630** of FIG. 6H shows that the head of John **632** has moved (e.g., sideways), which indicates that John **632** is moving within the field-of-view of the one or more cameras. An increase in motion of a subject in the field-of-view of the one or more cameras can increase the subject's activity level, which increases the probability of the subject satisfying the automatic selection criteria. Conversely, a decrease in motion of a subject in the field-of-view of the one or more cameras can decrease the subject's activity level, which decreases the probability of the subject satisfying the automatic selection criteria. In addition, Jane **634** has stopped talking (e.g., as indicated by the mouth of Jane **634** being closed in FIG. **6**H). As illustrated in FIG. **6**H, computer system **600** continues to apply the synthetic depth-of-field effect to emphasize Jane **634** relative to John **632** because computer system **600** has not made the determination that Jane **634** satisfies the set of automatic selection criteria due to not having enough information (e.g., for similar reasons as discussed above in relation to FIG. **6**D).

As opposed to computer system **600** of FIG. **6**H, computer system **690** has made the determination that Jane **634** satisfies the set of automatic selection criteria during a particular time frame of the video (e.g., for similar reasons as discussed above in relation to FIGS. **6**D-**6**G) and, based on this determination, automatically changes the synthetic depth-of-field effect to emphasize John **632** relative to Jane **634**. As illustrated in FIGS. **6**H-**6**K, computer system **690** displays an animation of previously captured media representation **640** smoothly transitioning from emphasizing Jane **634** relative to John **632** to emphasizing John **632** relative to Jane **634**. As a part of the animation, computer system **690** gradually displays Jane **634** with more blur and gradually displays John **632** with less blur such that John **632** is emphasized relative to Jane **634** at FIG. **6**K (e.g., using one or more similar techniques as described above in relation to FIGS. **6**D-**6**G).

As illustrated in FIG. **6**I, computer system **600** displays the scene shown in live preview **630** at seven seconds during the capture of the video (e.g., as indicated by elapsed time indicator **602***d*). Live preview **630** continues to show that John **632** is moving in the FOV (e.g., John **632** head is in a different position in FIG. **6**I than in FIG. **6**H). At FIG. **6**I, computer system **600** has not made a determination that John **632** satisfies the set of automatic selection criteria because more information is needed to make this determination. As illustrated in FIG. **6**I, computer system **600** continues to apply the synthetic depth-of-field effect to emphasize Jane **634** relative to John **632** because the determination has not be made that John **632** satisfies the set of automatic selection criteria (e.g., relying on the determination made in FIG. **6**F).

As illustrated in FIG. **6**J, computer system **600** displays the scene shown in live preview **630** during the capture video and computer system **600** continues to show that John **632** is moving in the FOV. While elapsed time indicator **602***d* shows seven seconds, live preview **630** of FIG. **6**J is displayed after live preview **630** of FIG. **6**I is displayed. At FIG. **6**J, computer system **600** makes a determination that John **632** satisfies the set of automatic selection criteria (e.g., for similar reasons as discussed above in relation to FIGS. **6**F-**6**G). Based on this determination, computer system **600** automatically changes the synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** and displays an animation of the blur that John **632** is displayed with decreasing and the blur that John **632** is displayed with increasing (e.g., using one or more techniques and for similar reasons as discussed above in relation to FIGS. **6**F-**6**G). As illustrated in FIG. **6**G, along with applying the synthetic depth-of-field effect to emphasize John **632** relative to Jane **634**, computer system **600** displays primary subject indicator **672***a* around the head of John **632** and secondary subject indicator **674***b* around the head of Jane **634** (e.g., using one or more techniques and for similar reasons as discussed above in relation to FIGS. **6**F-**6**G). Media capture line **680***d***1** and media playback line **680***d***2** of graph **680** of FIGS. **6**G-**6**J are also updated and displayed for similar reasons as discussed above in relation to FIGS. **6**F-**6**G.

FIGS. **6**L-**6**M illustrate an exemplary embodiment where computer system **600** does not change the synthetic depth-of-field effect that has been previously applied. As illustrated in FIG. **6**L, computer system **600** displays the scene shown in live preview **630** at ten seconds during the capture of the video (e.g., as indicated by elapsed time indicator **602***d*), where John **632** is wiping his face with towel **642**. As illustrated in FIG. **6**L, towel **642** covers (and/or obscures) the face of John **632**. In some embodiments, towel **642** covers the face of John **632** such that computer system **600** cannot detect the face of John **632** in the field-of-view of the one or more cameras (e.g., using one or more facial detection techniques). As illustrated in FIG. **6**M, computer system **600** displays the scene shown in live preview **630** at eleven seconds, where live preview **630** shows that John **632** has removed towel **642** of FIG. **6**L from his face. Thus, at FIG. **6**M, the face of John **632** is no longer covered.

At FIGS. **6**L-**6**M, computer system **600** and computer system **690** make individual determinations that the face of John **632** was covered and/or obscured (e.g., and/or the respective computer system could not detect the face of John **632**) for less than a predetermined period of time (e.g., 2-60 seconds). At FIGS. **6**L-**6**M, because of these individual determinations, computer system **600** and computer system **690** individually continue to apply the synthetic depth-of-field effect that has been previously applied (e.g., to emphasize John **632** relative to Jane **634** in FIGS. **6**H-**6**K), irrespective of whether or not towel **642** obscures the face of John **632**. As illustrated in FIG. **6**L, John **632** is emphasized relative to Jane **634** in both live preview **630** and previously captured media representation **640** even when towel **642** is obscuring the face of John **632**. As illustrated in FIGS. **6**L-**6**M, computer system **600** continues to display primary subject indicator **672***a* and secondary subject indicator **674***a* because computer system **600** is continuing to apply the synthetic depth-of-field effect that was being previously applied before John **632** covered his face with a towel **642** in FIG. **6**L. In some embodiments, the determination made by computer system **690** in FIGS. **6**L-**6**M occurs earlier with respect to the elapsed time of the video than the determination made by computer system **600** (e.g., for similar reasons as discussed above in relation to FIGS. **6**D-**6**G).

FIGS. **6**N-**6**T illustrate an exemplary embodiment where computer system **600** changes the synthetic depth-of-field effect in response to a first type of user input (e.g., a user-specified change). As illustrated in FIG. **6**O, computer system **600** displays the scene shown in live preview **630** (e.g., representing a frame of the video) at twelve seconds during the capture of the video (e.g., as indicated by elapsed time indicator **602***d*). At FIG. **6**N, computer system **600** is continuing to apply the synthetic depth-of-field effect to emphasize John **632** over Jane **634** to the content being captured by the one or more cameras of computer system **600** (e.g., as illustrated by the shading of live preview **630** of FIG. **6**N). At FIG. **6**O, computer system **600** detects single tap input **650***o* on Jane **634**.

At FIG. **6**P, in response to detecting single tap input **650***o*, computer system **600** changes the synthetic depth-of-field effect to emphasize Jane **634** over John **632** (e.g., as illustrated by the shading of live preview **630** of FIG. **6**P). In response to detecting single tap input **650***o*, computer system **600** makes an immediate change to the synthetic depth-of-field effect and does not display an animation of a transition that shows the synthetic depth-of-field effect changing (e.g., illustrated by live preview **630** of FIG. **6**P being displayed at twelve seconds during the capture of the video). Thus, live preview **630** is updated to reflect user-specified change in the synthetic depth-of-field effect (e.g., a changed that occurs in response to detecting an input) differently than live preview **630** is updated to reflect an automatic change in the synthetic depth-of-field effect. When a user-specified change in the synthetic depth-of-field effect occurs, live preview **630** is updated immediately (e.g., and/or the changed in the application of the synthetic depth-of-field occurs immediately). However, when automatic change in the synthetic depth-of-field effect occurs, live preview **630** is updated more gradually (e.g., an animation is displayed of a transition between the current synthetic depth-of-field effect and a new synthetic depth-of-field effect, as discussed in relation to FIGS. **6**D-**6**K). Further, graph **680** also shows this. In graph **680**, media capture line **680***d***1** is drawn at a right angle at twelve seconds to reflect how the immediate change in the user-specified change in synthetic depth-of-field effect occurred (e.g., in response to single tap input **650***o*) and media capture line **680***d***1** between three and ten seconds and twelve seconds is drawn with a curve line to reflect how smoother automatic changes in synthetic depth-of-field effect occurred.

Turning back to FIGS. **6**N-**6**P, computer system **690** displays previously captured media representation **640** with an animation of the user-specified change in the synthetic depth-of-field effect (e.g., that was occurs in response to detecting single tap input **650***o*) (e.g., during the playback of the captured video). As illustrated in FIGS. **6**N-**6**P, computer system **690** provides a smoother transition when displaying previously captured media representation **640** with the user-specified change in the synthetic depth-of-field effect because computer system **690** has information that indicates that a user-specified change will occur (e.g., for similar reasons for those described above in relation to FIGS. **6**D-**6**K). Thus, at FIG. **6**N, previously captured media representation **640** differs from live preview **630**, where previously captured representation media **640** has begun to show a change in the synthetic depth-of-field effect and live preview **630** has not. Notably, at FIG. **6**O, computer system **690** previously captured media representation **640** represents the change in the synthetic depth-of-field effect in its final state. At FIG. **6**O, computer system **690** completes the change in the synthetic depth-of-field effect to emphasize Jane **634** relative to John **632** at the frame where single tap input **650***o* was received (e.g., the blurring of previously captured media representation **640** of FIG. **6**O looks is same as live preview **630** of FIG. **6**P). Thus, computer system **690** is able to display the user-specified changed at the frame that corresponds to when the input that caused to user-specified change was received. In addition, the comparison of media capture line **680***d***1** and media playback line **680***d***2** shows how the user-specified change impacts the visual content (e.g., via live preview **630** and previously captured media representation **640**) during the playback of the video differently than during the capture of media. As shown by graph **680**, media playback line **680***d***2** shows a smoother and/longer transition than media capture line **680***d***1** (e.g., creates a right angle at twelve seconds) to change the synthetic depth-of-field effect in response to detecting single tap input **650***o*.

Turning to FIG. **6**Q, live preview **630** (and previously captured media representation **640**) is displayed with the user-specified synthetic depth-of-field effect change that was initiated via single tap input **650***o*, even though John's activity level **680***a***1** is greater than Jane's activity level **680***b***1** at FIG. **6**Q. When a user-specified change synthetic depth-of-field effect occurs, computer system **600** uses a modified set of automatic selection criteria. The modified set of automatic criteria is different from the set of criteria used to make the automatic changes synthetic depth-of-field effect discussed above in FIGS. **6**B-**6**K (e.g., that occurred before a request to a user-specified requested to change synthetic depth-of-field effect was received, before single tap input **650***o* was detected). In some embodiments, the modified set of automatic selection criteria has a higher threshold for automatically changing the synthetic depth-of-field effect than the set of criteria used to make the automatic changes synthetic depth-of-field effect discussed above in FIGS. **6**B-**6**K. In some embodiments, John **632** would have to talk louder, move more, move closer to the camera, stare straight into the camera, etc. for a longer period of time for computer system **600** to automatically change the synthetic depth-of-field effect to emphasize John **632** over Jane **634**. In some embodiments, after changing the application of the synthetic depth-of-field effect in response to detecting single tap input **650***o*, computer system **600** does not change the application of the synthetic depth-of-field effect for a predetermined period of time, irrespective of the subjects activity levels (e.g., unless the face of a subject is not detected for a predetermined period of time).

As illustrated in FIG. **6**Q, Jane **634** has started to walk out of the field-of-view of the one or more cameras (e.g., walked out of the scene as shown by live preview **630** of FIG. **6**Q). When looking at FIGS. **6**P-**6**Q, Jane **634** is being emphasized relative to John **632** in live preview **630** (and previously captured media representation **640**), while Jane **634** is moving in the field-of-view of the one or more cameras. This shows that the synthetic depth-of-field effect that is applied to emphasize a subject relative to other subjects follows and/or tracks the emphasized subject. In addition, subject indicators (e.g., as shown by primary subject indicator **672***b* of FIGS. **6**P-**6**Q) moves with each of the respective subjects that a respective subject indicator surrounds. In some embodiments, in response to detecting an input at a location of live preview **630** that is not on a subject, the applied synthetic depth-of-field effect does not follow and/or track a subject.

At FIG. **6**R, Jane **634** is not in the field-of-view of the one or more cameras (e.g., has walked out of the scene). At FIG. **6**R, a determination is made that John **632** satisfies the modified set of automatic selection criteria (e.g., because Jane **634** is out of the frame and/or computer system **600** is not detecting any activity from Jane **634**, as indicated by Jane's activity level **680***b***1**). As illustrated in FIG. **6**R, computer system **600** automatically changes the synthetic depth-of-field effect to emphasize John **632** (e.g., John **632** is displayed with only a natural blur (e.g., no shading) while other portions of live preview **630** includes an amount of synthetic blur (e.g., shading)). Computer system **600** automatically changes the synthetic depth-of-field effect to emphasize John **632** relative to other portions of live preview **630** because the determination is made that John **632** satisfies the modified set of automatic selection criteria and/or because Jane's has not had any activity level for a predetermined period of time (e.g., 1 second).

FIG. **6**R**1** illustrates an exemplary embodiment of the position of Jane **634** relative to John **632** in the FOV of computer system **600**. At FIG. **6**R**1**, live preview **630** is being displayed at the seventeen second mark, using one or more similar techniques as discussed above in relation to FIG. **6**R. At FIG. **6**R**1**, boundary **601** is indicative of the size of the FOV, where the one or more cameras of computer system **600** can capture visual content inside of boundary **601** (e.g., within region **603** which includes live preview **630**). As illustrated in FIG. **6**R**1**, Jane **634** is within region **603**. Thus, Jane **634** is being captured by the one or more cameras, although Jane **634** is not positioned within region **603** enough such that Jane **634** is captured by the one or more cameras to be displayed in live preview **630**. As illustrated in FIG. **6**R**1**, when Jane **634** is positioned within region **603** but outside of content in the FOV that is used to display live preview **630**, computer system **600** continues to track Jane **634** for a predetermined period of time (e.g., 0.1-5 seconds). In some embodiments, while Jane **634** is position within region **603** but outside of content in the FOV that used to display live preview **630** (as illustrated in FIG. **6**R**1**), computer system **600** (or another computer system) does not track Jane **634** after the predetermined period of time if a determination is made that Jane **634** cannot be captured in the visual content that corresponds to live preview **630**. In some embodiments, a neural network (e.g., discussed in FIG. **12**), still tracks Jane after a period of time and computer system **600** can provide one or more representations (e.g., stale representations and/or representations that were previously captured of Jane **634**) of Jane **634** for a second predetermined period of time. In some embodiments, after the second predetermined period of time, computer system **600** automatically switches to emphasizing and/or tracking another subject and/or focal plane that is within the visual content captured in the FOV that corresponds to live preview **630**. In some embodiments, when Jane **634** is positioned outside of region **603** (e.g., outside of boundary **601**), computer system **600** does not track (e.g., and/or does not store an identifier corresponding to) Jane **634**. In some embodiments, when Jane **634** is positioned within region **603** and inside of the content in the FOV that used to display live preview, computer system **600** tracks Jane **634**, irrespective of a predetermined period of time. In some embodiments, computer system **600** automatically switches to emphasizing and/or tracking another subject (e.g., "John" and/or focal plane that is within the visual content captured in the FOV that corresponds to live preview **630** based on information (e.g., the period of time that Jane **634** has been in region **603** and/or outside of FOV for the content used to display live preview **630** and/or whether Jane **634** is moving towards and/or away the content used to display live preview **630** while Jane **634** is in region **603**) that computer system **600** has concerning the user that is positioned within region **603** but outside of the content in the FOV that used to display live preview. This enables computer system **600** to switch emphasis to a subject entering the portion of the FOV that is used to display the live preview more quickly, because computer system **600** (and, optionally, a neural network making automatic emphasis decisions) has more time to track the subject and observe behavior of the subject that occurs within region **603** but outside of the FOV that is used to display the live preview to determine a relative importance of the subject as compared to other subjects who could be emphasized as compared to a situation where the computer system **600** does not have an opportunity to observe behavior of the subject before the subject enters the portion of the FOV that is used to display the live preview.

As illustrated in FIG. **6**S, Jane **634** has walked back into the field-of-view of the one or more cameras (e.g., standing in the scene as shown by live preview **630** of FIG. **6**S). At FIG. **6**S, live preview **630** continues to be displayed with the synthetic depth-of-field effect that emphasizes John **632** relative to Jane **634**, which is due to single tap input **650***o* of FIG. **6**O being a first type of input. In particular, computer system **600** treats the change in the synthetic depth-of-field effect to emphasize Jane **634** relative John **632** as a temporary user-specified change to the application of synthetic depth-of-field effect because single tap input **650***o* of FIG. **6**O is a first type of input. When a temporary user-specified change to the application synthetic depth-of-field effect occurs, computer system **600** does not automatically re-apply the application of the temporary change to the synthetic depth-of-field effect after an automatic change to the synthetic depth-of-field effect has occurred (e.g., irrespective of how long Jane **634** has been out of the visual content in the FOV that corresponds to live preview **630**). Thus, computer system **600** continues to apply the synthetic depth-of-field effect to emphasize John **632** relative to other portions of live preview **630** because single tap input **650***o* of FIG. **6**O was a first type of input and an automatic change to the synthetic depth-of-field effect occurred (e.g., change discussed in FIG. **6**P) after single tap input **650***o* was detected.

As illustrated in FIG. **6**T, live preview **630** continues to be displayed with the synthetic depth-of-field effect that emphasizes John **632** relative to Jane **634**, although four seconds has passed since live preview **630** of FIG. **6**S was displayed (e.g., as indicated by **602***d* of FIGS. **6**S-**6**T). At FIG. **6**T, computer system **600** continues to apply the synthetic depth-of-field effect that emphasizes John **632** relative to Jane **634** because single tap input **650***o* of FIG. **6**O was a first type of input and an automatic change to the synthetic depth-of-field effect occurred (e.g., change discussed in FIG. **6**P) after single tap input **650***o* was detected.

FIGS. **6**U-**6**Y an exemplary embodiment where computer system **600** changes the synthetic depth-of-field effect in response to a second type user input (e.g., a user-specified change). As illustrated in FIG. **6**U, computer system **600** live preview **630** continues to be displayed with the synthetic depth-of-field effect that emphasizes John **632** relative to Jane **634**, although ten seconds has passed since live preview **630** of FIG. **6**S was displayed e.g., as indicated by **602***d* of FIGS. **6**S-**6**T). At FIG. **6**U, live preview **630** is displayed with the synthetic depth-of-field effect that emphasizes John **632** relative to Jane **634** for similar reasons as discussed above in relation to FIGS. **6**S-**6**T. At FIG. **6**U, computer system **600** detects double tap input **650***u*.

As illustrated in FIG. **6**V, in response to detecting double tap input **650***u*, computer system **600** immediately changes the synthetic depth-of-field effect to emphasize Jane **634** over John **632** (e.g., as illustrated by the shading of live preview **630** of FIG. **6**V). In response to detecting double tap input **650***u*, computer system **600** makes an immediate change to the synthetic depth-of-field effect and does not display an animation of a transition that shows the synthetic depth-of-field effect changing (e.g., for similar reasons as discussed above in relation to FIG. **6**P and as indicated by **680***d***1** at thirty seconds).

At FIG. **6**V, computer system **600** displays primary subject indicator **678***b* around the head of Jane **634** and secondary subject indicator **674***a* around the head of John **632**. Notably, primary subject indicator **678***b* is different from primary subject indicator **672***b* that was displayed in response to detecting single tap input **650***o* because each respective indicator was displayed in response to detecting a different type of input. In particular, primary subject indicator **678***b* is displayed at FIG. **6**V because a determination was made that a second type input was detected (e.g., double tap input **650***u* of FIG. **6**U), and primary subject indicator **672***b* is displayed at FIG. **6**P because a determination was made that the first type input was detected (e.g., single tap input **650***o* of FIG. **6**O). Moreover, computer system **600** displays different subject indicators because a different type of tracking is applied when a second type of input is received than when a first type of input is received. As discussed above in relation to FIGS. **6**O-**6**P, computer system **600** makes a temporary change to the synthetic depth-of-field effect applied when the first type of input (e.g., single tap input **650***o* of FIG. **6**O) is received. As discussed above in relation FIGS. **6**O-**6**P, computer system **600** does not automatically re-apply the application of the temporary change to the synthetic depth-of-field effect after an automatic change to the synthetic depth-of-field effect has occurred. However, when a second type of input is received (e.g., double tap input **650***u* of FIG. **6**U), computer system **600** makes a user-specified change to the synthetic depth-of-field effect applied. When computer system **600** makes a user-specified change to the synthetic depth-of-field effect applied, computer system **600** does automatically re-apply the application of the user-specified change to the synthetic depth-of-field effect after an automatic change to the synthetic depth-of-field effect has occurred (e.g., as further discussed below in relation to FIG. **6**Y). As illustrated in FIG. **6**V, because computer system **600** determined that double tap input **650***v* is a second type of input, computer system **600** displays tracking indicator **694***a* (e.g., "AF TRACKING LOCK"). Tracking indicator **694***a* indicates that an auto-focus setting (e.g., and/or the currently applied synthetic-depth-of-field) will not be automatically changed by computer system **600**. Tracking indicator **694***a* is displayed in the camera user interface and concurrently with live preview **630** of FIG. **6**V.

Returning to FIGS. **6**T-**6**V, computer system **690** displays previously captured media representation **640** with an animation of the user-specified change in the synthetic depth-of-field effect (e.g., that was occurs in response to detecting double tap input **650***u*) (e.g., during the playback of the captured video). As illustrated in FIGS. **6**T-**6**V, computer system **690** provides a smoother transition when displaying previously captured media representation **640** with the user-specified change in the synthetic depth-of-field effect (e.g., than when displaying live preview **630** of FIGS. **6**T-**6**V) because computer system **690** has information that indicates that a user-specified change will occur (e.g., for similar reasons for those described above in relation to FIGS. **6**N-**6**P).

As shown by live preview **630** of FIG. **6**V, Jane **634** has started to walk out of the field-of-view of the one or more cameras (e.g., walked out of the scene as shown by live preview **630** of FIG. **6**Q) and the synthetic depth-of-field effect moves with Jane **634** (e.g., as shown in FIGS. **6**U-**6**T and for similar reasons as discussed in relation to FIGS. **6**P-**6**Q). At FIG. **6**W, Jane **634** is not in the field-of-view of the one or more cameras (e.g., has walked out of the scene). At FIG. **6**W, a determination is made that John **632** satisfies the modified set of automatic selection criteria (e.g., because Jane **634** is out of the FOV, the face of Jane **634** cannot be detected by computer system **600**, and/or computer system **600** is not detecting any activity from Jane **634**, as indicated by Jane's activity level **680**). As illustrated in FIG. **6**W, computer system **600** automatically changes the synthetic depth-of-field effect to emphasize John **632** (e.g., John **632** is displayed with only a natural blur (e.g., no shading) relative to dog **638**, which has entered the field-of-view of the one more cameras. Computer system **600** automatically changes the synthetic depth-of-field effect to emphasize John **632** relative to dog **638** (e.g., for similar reasons and using similar techniques as disclosed above in relation to FIG. **6**W). As illustrated in FIG. **6**W, primary subject indicator **672***a* is displayed around the head of John **632** and secondary subject indicator **674***c* is displayed around the head of dog **638** because computer system **600** has applied the synthetic depth-of-field effect to emphasize John **632** relative to dog **638**.

As illustrated in FIG. **6**X, computer system **600** has changed the synthetic depth-of-field effect to emphasize dog **638** relative to John **632** because a determination was made that dog **638** satisfies the set of automatic selection criteria (e.g., as indicated by dog's activity level **680***c***1** being above John's activity level **680***a***1** at around thirty-four seconds on graph **680**). Here, dog **638** satisfied the set of automatic selection criteria and not the modified set of criteria because Jane **634** is not in the field-of-view of the one or more cameras. In addition, because the determination was made that dog **638** satisfies the set of automatic selection criteria, computer system **600** displays primary subject indicator **672***c* is displayed around the head of dog **638** and secondary subject indicator **674***a* is displayed around the head of John **632**.

As illustrated in FIG. **6**Y, Jane **634** has walked back into the field-of-view of the one or more cameras (e.g., standing in the scene shown by live preview **630** of FIG. **6**Y). At FIG. **6**Y, computer system **600** has changed the synthetic depth-of-field effect to emphasize Jane **634** relative to the other subjects (e.g., John **632**, dog **638**) in the field-of-view of the one or more cameras. In particular, computer system **600** changes the synthetic depth-of-field effect to emphasize Jane **634** relative to the other subjects because a user-specified change to the synthetic depth-of-field effect was applied in response to detecting double tap input **650***u*. That is, computer system **600** changes the synthetic depth-of-field effect to emphasize Jane **634** relative to the other subjects at FIG. **6**Y, irrespective of whether an automatic change in the synthetic depth-of-field effect was applied after the permanent change to the synthetic depth-of-field effect was made (e.g., in response to detecting double tap input **650***u*). As illustrated in FIG. **6**Y, because the synthetic depth-of-field effect has been applied to emphasize Jane **634** relative to the other subjects, computer system **600** displays primary subject indicator **678***b* around the head of Jane **634** and displays secondary subject indicators **674***a* and **674***c* around the heads of John **632** and dog **638**, respectively. In some embodiments, at FIG. **6**Y, computer system **600** applies the synthetic depth-of-field effect to emphasize Jane **634** relative to the other subjects based on a determination being made that Jane **634** is inside of region **603** of FIG. **6R1** and/or inside of region **603** of FIG. **6R1** for less than a predetermined period of time (e.g., 0.5 seconds-5 seconds). In some embodiments, based on a determination being made that Jane **634** is outside of region **603** of FIG. **6R1** and/or inside of region **603** of FIG. **6R1** for more than a predetermined period of time, computer system **600** does not apply the synthetic depth-of-field effect to emphasize Jane **634** relative to the other subjects.

FIGS. **6**Z-**6**AB an exemplary embodiment where computer system **600** changes the synthetic depth-of-field effect in response to a third type of user input (e.g., a user-specified change). As illustrated in FIG. **6**Z, live preview **630** is displayed with the synthetic depth-of-field effect that emphasizes Jane **634** relative to the other subjects in the media. At FIG. **6**Z, computer system **600** detects press-and-hold input **650***z* on dog **638**. In some embodiments, press-and-hold input **650***z* is detected at another location on live preview **630** (e.g., such as a location that John **632**, Jane **634**, and dog **638** do not occupy, a location that does not correspond to a location of a subject).

At FIG. **6**AA, in response to detecting press-and-hold input **650***z* on dog **638**, computer system **600** changes the synthetic depth-of-field effect to emphasize a focal plane of the field-of-view of the one or more cameras (e.g., because the press-and-hold input is the third type of input that is different the first and second types of inputs). The focal plane that is emphasized includes a location, object, and/or subject that corresponds to the location, object, and/or subject at which press-and-hold input **650***z* was detected. Because dog **638** is located within the focal plane, dog **638** is emphasized relative to the other subjects in live preview **630** (e.g., as indicated by dog **638** having no shading). In addition, John **632** is displayed with less blur than Jane **634** because John **632** is closer to the focal plane being emphasized than Jane **634** (e.g., as indicated by the shading of live preview **630**). In response to detecting press-and-hold input **650***z*, computer system **600** displays focus indicator **676** at a location that corresponds to the location at which press-and-hold input **650***z* was detected. Moreover, in response to detecting press-and-hold input **650***z*, computer system **600** displays secondary subject indicators **674***a* and **674***b* around the heads of John **632** and Jane **634**, respectively. In FIG. **6**AA, focus indicator **676** is displayed to indicated that the focal plane is being emphasized by the synthetic depth-of-field effect. In some embodiments, focus indicator **676** is displayed because dog **638** is in the focal plane and is currently being emphasized. However, in some embodiments, secondary subject indicator **674***c* is displayed around the head of dog **638**.

At FIG. **6**AB, live preview **630** shows John **632**, Jane **634**, and dog **638** moving away from the focal plane that is currently being emphasized (e.g., as indicated by focus indicator **676**). As illustrated in FIG. **6**AB, John **632**, Jane **634**, and dog **638** are displayed with a synthetic amount of blur because they are not within the focal plan that is currently being emphasized. In some embodiments, one or more portions of live preview **630** that are within the focal plane are emphasized (e.g., while the focal plane is emphasized in response to detecting press-and-hold input **650***z*). At FIG. **6**AB, computer system **600** detects tap input **650***a* b on stop control **616**.

FIGS. **6**AC-**6**AQ illustrate an exemplary embodiment where the video captured in FIGS. **6**B-**6**AB (e.g., in response to detecting tap input **650***b***2**) is displayed and edited. At FIG. **6**AC, in response to detecting tap input **650***a* b, computer system **600** stops the capture of video and saves the captured video (e.g., that was captured in FIGS. **6**B-**6**AB). As illustrated in FIG. **6**C, in response detecting tap input **650***a* b, computer system **600** updates media collection **624** to display a representation of the captured video (captured in FIGS. **6**B-**6**AB). In some embodiments, computer system **600** detects one or more inputs and navigates to the cinematic video editing user interface shown in FIG. **6**AD. In some embodiments, the one or more inputs includes an input directed to media collection **624**. In some embodiments, in response to detecting an input on media collection **624**, a representation of the captured video is displayed and a control for editing the captured video is displayed. In some embodiments, the one or more inputs includes an input on the control for editing the captured video. In some embodiments, in response to detecting an input directed to the control for editing the captured video, computer system **600** displays the cinematic video editing user interface of FIG. **6**AD.

FIG. **6**AD illustrates computer system **600** displaying a cinematic video editing user interface that includes control region **662**, media representation **660**, media navigation element **664**, and media editing mode controls **684**. Control region **662** is positioned above media representation **660** and includes done control **662***a*, redo control **662***b***1**, undo control **662***b***2**, cinematic video control **662***c*, synthetic depth-of-field effect (SDOFE) control **662***d*, depth indicator control **662***e*, mute control **662***f*, and cancel control **662***g*. In some embodiments, in response to detecting an input directed to done control **662***a*, computer system **600** saves a representation of media that has been edited while a the cinematic video editing user interface has been displayed. In some embodiments, computer system **600** displays done control **662***a* as not being selectable when no changes and/or modification has been made to media (e.g., media represented by media representation **660**). In some embodiments, computer system **600** displays done control **662***a* as being selectable when at least one change and/or modification has been made to media using the cinematic video editing user interface. In some embodiments, when done control **662***a* is not selectable, computer system **600** does not save a representation of media in response to detecting an input directed to done control **662***a*. In some embodiments, in response to detecting an input directed to redo control **662***b***1**, computer system **600** reverses the most recent undue operation. In some embodiments, in response to detecting an input directed to undo control **662***b***2**, computer system **600** reverses the most recent edit (and, in some embodiments, reserves all edits) that has been made to the media. In some embodiments, in response to detecting an input directed to cinematic video control **662***c*, computer system **600** performs one or more operations as described below in relation to FIGS. **6**AP-**6**AQ. In some embodiments, SDOFE control **662***d* indicates that the computer system **600** is displaying and/or is currently configured to display a frame of the media via media representation **660** where a synthetic depth-of-field effect has been manually applied to the frame (e.g., a user-specified change in the synthetic depth-of-field effect as discussed above in relation to FIGS. **6**O-**6**AB). In some embodiments, SDOFE control **662***d* indicates that the computer system **600** is displaying and/or is currently configured to display a frame of the media via media representation **660** where a synthetic depth-of-field effect has been automatically applied to the frame (e.g., an automatic change in the synthetic depth-of-field effect as discussed above in relation to FIGS. **6**B-**6**N). In some embodiments, in response to detecting an input directed to SDOFE control **662***d*, computer system **600** ceases to display the media using user-specified changes to the synthetic depth-of-field effect in the media while continuing to display the media using automatic changes to the synthetic depth-of-field effect. In some embodiments, in response to detecting an input directed to SDOFE **662***d*, computer system **600** modifies media representation **660** such that one or more user-specified changes in the synthetic depth-of-field effect are not applied to one or more frames of the media while maintaining the application of automatic changes in the synthetic depth-of-field effect (e.g., as discussed further below in relation to FIGS. **6**AZ-**6**BC). In some embodiments, in response to detecting an input directed to SDOFE control **662***d*, computer system **600** modifies media representation **660** such that one or more automatic changes in the synthetic depth-of-field effect are not applied to one or more frames of the media while maintaining user-specified changes to the application of the synthetic depth-of-field effect (e.g., user-specified changes, such as those discussed in relation to FIGS. 6O-6AB). In some embodiments, in response to detecting an input directed to depth indicator control **662***e*, computer system **600** performs one or more operations as discussed above in relation to FIGS. **6**AD-**6**AG. In some embodiments, in response to detecting an input directed to mute control **662***f*, computer system **600** toggles a setting (e.g., on/off) that configures computer system **600** to output sound while playing back media. In some embodiments, in response to detecting an input directed to cancel control **662***g*, computer system **600** displays a confirmation screen for canceling one or more edits that were made to media.

As illustrated in FIG. **6**AD, media representation **660** is a representation of a frame of the video captured in FIGS. **6**B-**6**AB ("captured video"). At FIG. **6**AD, media representation **660** is the first frame of the video and that was captured before live preview **630** of FIG. **6**B was captured (e.g., live preview **630** was captured during the 0:00). Notably, media representation **660** includes primary subject indicator **672***a* around the head of John **632** and secondary subject indicator **674***b* around the head of Jane **634** because media representation **660** is displayed with the synthetic depth-of-filed effect that is applied to emphasize John **632** relative to Jane **634** (e.g., for similar reasons as discussed above in relation to FIG. **6**B). Thus, computer system **600** displays subject indicators (e.g., primary subject indicator and/or secondary subject indicator) during the capture of videos (e.g., live preview **630**) and while displaying representations of previously captured videos (e.g., media representation **660**). As illustrated herein, computer system **600** displays subject indicators while media is not being played back (e.g., media representation **660** of FIG. **6**B) and during the playback of media (e.g., media representation **660** of FIG. **6**AK discussed below). In some embodiments, computer system **600** does not display subject indicators (and/or any subject indicators) while media is not being played back and during the playback of media (e.g., previously captured media representation **640**).

As illustrated in FIG. **6**AD, media editing mode controls **684** includes cinematic video mode editing control **684***a*, visual characteristic editing mode control **684***b*, filter editing mode control **684***c*, and aspect ratio editing mode control **684***d*. As illustrated in FIG. **6**AD, cinematic video mode editing control **684***a* is displayed as being selected (e.g., as indicated by selection indicator **684***a***1** being displayed below cinematic video mode editing control **684***a* in FIG. **6**AD), which indicates that the cinematic video editing user interface is displayed. In some embodiments, in response to detecting an input directed to filter editing mode control **684***c* or aspect ratio editing mode control **684***d*, computer system **600** displays one or more controls that corresponds to the selected control (e.g., control in which the input was directed) for editing one or more frames of the video. In some embodiments, in response to detecting an input directed to filter editing mode control **684***c* or aspect ratio editing mode control **684***d*, one or more user interface objects that are displayed in the cinematic video editing media user interface cease to be displayed.

As illustrated in FIG. **6**AD, media navigation element **664** includes scrubber region **664***a*, effects region **664***b*, and playback control **668***a*. Scrubber region **664***a* includes multiple representations of frames in the capture video, playhead **664***a***1**, start crop control **664***a***2**, end crop control **664***a***3**. As illustrated in FIG. **6**AD, playhead **664***a***1** is displayed at a location that corresponds to the start of a representation of the initial frame (e.g., frame that is furthest to the left in scrubber region **664***a*) of the captured video. Because playhead **664***a***1** is displayed at the location that corresponds to the start of a representation of the initial frame (e.g., zero seconds of the captured video), media representation **660** of FIG. **6**A is a representation of the initial frame of the captured video (e.g., at the time in the video that corresponds to the location of playhead **664***a***1**). Start crop control **664***a***2** and end crop control **664***a***3** indicate a portion of the captured video that will be cropped and saved in response to computer system **600** receiving a request to save edited media (e.g., selection of done control **662***a*). In particular, the portion of the video that will be cropped is the portion of the captured video that is between start crop control **664***a***2** and end crop control **664***a***3** (and/or that is from a time in the video that corresponds to the location of start crop control **664***a***2** in scrubber region **664***a* to a time in the captured video that corresponds to the location of end crop control **664***a***3** in scrubber region **664***a*).

As illustrated in FIG. **6**AD, effects region **664***b* includes time bar **664***b***1** and change indicators **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, and **688***h* ("change indicators"). Time bar **664***b***1** has multiple tick marks, where each tick mark corresponds to a time in the captured video. The tick marks displayed on time bar **664***b***1** cover at least a portion of the full length of the captured video. At FIG. **6**AD, each change indicator is displayed near (e.g., on top of and/or adjacent to) a tick mark on time bar **664***b***1** that corresponds to a time in the captured video where computer system **600** changed the application of synthetic depth-of-field effect being applied to the visual content of the video that was being captured. At FIG. **6**AD, effects region **664***b* has been copied above graph **680** ("effects region **664***b*—expanded") to indicate how the change indicators correspond to the changes in the application of synthetic depth-of-field effect being applied to the visual content of the video. In some embodiments, one or more change indicators are displayed at the beginning, end, middle (average) position (e.g., with respect to the tick marks of time bar **664***b***1**) relative to when the actual application of the synthetic depth-of-field effect being applied to the visual content was changed (e.g., while the video was being captured and/or after the video has been captured). In some embodiments, each of the change indicators are displayed below a respective representation of a frame in scrubber region **664***a* that corresponds to the time at which the synthetic depth-of-field effect was applied to content representative of the respective frame. In some embodiments, the respective representation of the frame in the scrubber region is displayed with the synthetic depth-of-field effect that was applied during the time when the respective frame in the scrubber region was captured (e.g., such that the frames in the scrubber region include blurring). In some embodiments, the representations of the frames do not include blurring and/or do show the synthetic depth-of-field effect being applied.

Notably, change indicators **686***a*, **686***b*, **686***d*, **686***f*, and **686***g* ("automatic change indicators") represents changes in the application of the synthetic depth-of-field effect were automatically made by computer system **600**. Table 1 (Change Indicator Corresponds Table) is provided below to quickly summarize the connection of each of the changes indicators of FIG. **6**AD to the captured video.

TABLE 1

Change Indicator Correspondence Table

Change Indication Identifier	Change Type	Application of Synthetic Depth-of-Field	Time of Final Change Shown in video (excluding transition)	Exemplary FIGS.
686a	Automatic	Changed to emphasize Jane	0:04	FIGS. 6D-6G
686b	Automatic	Changed to emphasize John	0:07	FIGS. 6H-6K
688c	User-specified (input 650o)	Changed to emphasize Jane (temporary change)	0:12	FIGS. 6O-6Q
686d	Automatic	Changed to emphasize John	0:17	FIG. 6R
688e	User specified (input 650u)	Changed to emphasize John	0:30	FIGS. 6U-6V
686f	Automatic	Changed to emphasize John (while Jane was out of frame)	0:32	FIG. 6W
686g	Automatic (talking)	Changed to emphasize dog (while Jane was out of frame)	0:36	FIGS. 6W-6X
688h	User-specified (input 650z)	Changed to emphasize focal plane	0:42	FIGS. 6Y-6AB

As illustrated in FIG. **6**AD, the automatic change indicators are illustrated using X's while the user-specified change indicators are represented change indicators illustrated using O's. The automatic change indicators are represented differently than the user-specified change indicators because automatic change indicators have a different visual appearance than the user-specified change indicators. Moreover, each of user-specified change indicators is displayed with a transition indicator (e.g., **688***c***1**, **688***e***1**, and/or **688***h***1**) that extends from the user-specified change to the next change (e.g., change immediately to the right of the user-specified change and/or to the right end of effect region **664***b*). In some embodiments, a transition indicator represents a respective period of time during the media to which a user-specified change is applied the frames of media that occur during the respective period of time. In some embodiments, one or more other techniques (e.g., using different colors, sizes, changes, text, locations, etc.) can be used to distinguish the automatic change indicators from the user-specified change indicators. In some embodiments, the user-specified change indicators are displayed and automatic change indicators are not displayed and/or vice-versa. In some embodiments, computer system **600** includes a selectable option to cease to display automatic change and/or user-specified change indicators while maintaining display of the user-specified change indicators and/or vice-versa (e.g., SDOFE control **662***d*). In some embodiments, user-specified change indicators that occur during the capture of the video are displayed differently (e.g., is displayed with a different visual appearance) from user-specified change indicators that occur after the video has been captured (e.g., such as while editing the video). At FIG. **6**AD, computer system **600** detects tap input **650***ad* on depth indicator control **662***e*.

As illustrated in FIG. **6**AE, in response to detecting tap input **650***ad*, computer system **600** displays depth control **682** to the left of media editing mode controls **684** (e.g., or above in portrait orientation when computer system **600** is in a portrait orientation). Depth control **682** is a slider that is displayed with depth control value **682***a* (e.g., which was displayed in depth indicator control **662***e* of FIG. **6**AD). In some embodiments, in response to detecting tap input **650***ad*, computer system **600** ceases to display scrubber region **664***a* and effects region **664***b* (e.g., scrubber region **664***a* and effects region **664***b* are not displayed while depth control **682** is not displayed and/or are displayed while depth control **682** is displayed). At FIG. **6**AE, computer system **600** detects rightward swipe input **650***ae* on depth control **682**.

At FIG. **6**AF, in response to detecting rightward swipe input **650***a* e, computer system **600** changes depth control value **682***a* from a 4.5 f-stop value to a 1.4 f-stop value, which increases the blurring applied to the portions of the media representation **660** that does not include John **632** (e.g., that are not in focus), who is currently being emphasized (e.g., in focus) by the synthetic depth-of-field effect that has been applied to the frame that corresponds to media representation **660** of FIG. **6**AF. At FIG. **6**AF, John **632** is not displayed with an additional amount of blur (e.g., is not darker when compared to John **632** of FIG. **6**AE) in response to detecting rightward swipe input **650***ae*, but Jane **634** and the background and foreground portions of media representation **660** are displayed with an additional amount of blur (e.g., are darker when compared to how each respective portion was blurred in FIG. **6**AE). Accordingly, an adjustment to depth control **682** causes applied synthetic depth-of-field effect to be adjusted. In some embodiments, an adjustment to depth control **682** causes an adjustment to only the representation of the frame of the captured video that is displayed via media representation **660** when the adjustment is performed. In some embodiments, an adjustment to depth control **682** causes an adjustment to the frames (e.g., all of the frames and/or a majority of the frames) of the captured video, irrespective of whether a synthetic depth-of-field effect has been applied (e.g., global change) or not applied to the frames of the capture video. In some embodiments, an adjustment to depth control **682** causes an adjustment to the frames of the captured video that the same application of synthetic depth-of-field effect that has been applied (e.g., frames of the video where John **632** is emphasized by the synthetic depth-of-field effect at FIG. **6**AF and/or frames of the video that correspond to and/or occur after a change in the synthetic depth-of-field effect that media representation **660** of FIG. **6**AF but before a different change in the synthetic depth-of-field effect (e.g., between zero seconds and three seconds in FIG. **6**AF)). At FIG. **6**AF, computer system **600** detects tap input **650***af***1** on depth control **682** and/or leftward swipe input **650***af***2** on depth control **682**.

As illustrated in FIG. **6**AF**1**, in response to detecting tap input **650***af***1**, computer system **600** ceases to display depth control **682** and continues to display media representation **660** with the same amount of blur that it had before tap input **650***af***1** was detected. In addition, computer system **600** updates display of depth indicator control **662***e* to include the value (e.g., 1.4) to which depth control **682** was previously set (e.g., in response to detecting rightward swipe input **650***ae*). In some embodiments, computer system **600** updates display of depth indicator control **662***e* to include the value (e.g., 1.4) that was selected in response to detecting rightward swipe input **650***ae*.

As illustrated in FIG. **6**AG, in response to detecting leftward swipe input **650***af***2**, computer system **600** changes depth control value **682***a* from the 1.4 f-stop value to the 4.5 f-stop value and decreases the blurring applied the portions of the media representation **660** that are not in focus (e.g., indicated by lighter shading when compared to FIG. **6**AF). In some embodiments, the techniques described herein that relate to depth control **682** also work for depth indicator **602***e* (e.g., before/during the capture of media as discussed above in relation to FIG. **6**B). At FIG. **6**AG, computer system **600** detects tap input **650***ag* on depth indicator control **662***e*. As illustrated in FIG. **6**AH, in response to detecting tap input **650***ag*, computer system **600** ceases to display depth control **682** and continues to display media representation **660** with the same amount of blur that it had before tap input **650***a* g was detected. In addition, computer system **600** updates display of depth indicator control **662***e* to include the value (e.g., 4.5) to which depth control **682** was previously set (e.g., in response to detecting leftward swipe input **650***af***2**). As illustrated in FIG. **6**AH, computer system **600** detects tap input **650***ah* on media playback control **668***a*. In response to detecting tap input **650***ah*, computer system **600** initiates playback of the captured video.

FIGS. **6**AI-**6**AO illustrates exemplary embodiments where user-specified changes are created during the captured video. At FIG. **6**AI, computer system **600** is playing back the captured video, which is indicated by pause playback control **668***b* being displaying and media playback control **668***a* of FIG. **6**AH ceasing to be displayed. As illustrated in FIG. **6**AI, playhead **664***a***1** is displayed at a location that corresponds to a frame that is displayed seven seconds into the duration of the captured video (indicated by elapsed time indicator **664***c* that is displayed above playhead **664***a***1**) and media representation **660** has been updated to be the representation of the frame that is displayed seven seconds into the duration of the captured video. In particular, media representation **660** corresponds to (e.g., represents the same frame as) live preview **630** of FIG. **6**K, where an automatic change to the synthetic depth-of-field effect was applied to emphasize John **632** relative to Jane **634**. Accordingly, media representation **660** of FIG. **6**AI includes primary subject indicator **672***a* around the head of John **632** and secondary subject indicator **674***b* around the head of Jane **634** to reflect the synthetic depth-of-field effect that was applied. At FIG. **6**AI, computer system **600** detects single tap input **650***ai* on Jane **634** at the seven second mark in the playback of the media.

At FIG. **6**AJ, in response to detecting single tap input **650***ai*, computer system **600** changes the synthetic depth-of-field effect to emphasize Jane **634** relative to John **632**. As illustrated in FIG. **6**AJ, the synthetic depth-of-field effect has been applied to a representation of a frame of the video that is displayed at the eight second mark in the captured video (e.g., as indicated by elapsed time indicator **664***c*). Although FIG. **6**AJ illustrates a representation of a frame of the video that occurred after single tap input **650***ai* was detected, computer system **600** changes the synthetic depth-of-field effect has been applied to all of the frames of the edited media between the five second mark (e.g., when single tap input **650***ai* was detected) in the captured video up to the twelve second mark (e.g., when the next changed to the synthetic depth-of-field effect occurs in the captured video, as indicated by user-specified changed representation **688***c*). Edit media playback line **680***d***3** of graph **680** also indicates when and how the synthetic depth-of-field effect has been changed in response to the detection of single tap input **650***ai*. As shown by graph **680**, edit media playback line **680***d***3** has decoupled from media playback line **680***d***2** to indicate that computer system **600** has changed the application of the synthetic depth-of-field effect in response to detecting single tap input **650***ai* and when the change occurred. In particular, edit media playback line **680***d***3** transitions to be positioned on activity tracker **680***b* (e.g., "Jane's tracker") between the five second mark and the twelve second mark because computer system **600** replaces automatic change indicator **686***b* of FIG. **6**AI with user-specified change indicator **688***i* in response to detecting single tap input **650***ai*.

As illustrated in FIG. **6**AJ, in response to detecting single tap input **650***ai*, computer system **600** ceases to display automatic change indicator **686***b* of FIG. **6**AI and displays user-specified change indicator **688***i* (e.g., along with transition indicator **688***i***1**) at the location in which automatic change indicator **686***b* was displayed. Thus, in some embodiments, a user-specified change during the editing of the media can replace an automatic and/or a user-specified change that occurred during the capture of the media and/or during the editing of the media. In some embodiments, computer system **600** detects a respective input on a representation of a frame on a video that does not correspond to a respective time in the video at which a change in the synthetic depth-of-field effect has occurred and, in response to detecting the respective input, computer system **600** displays an additional user-specified change indicator. In some embodiments, computer system **600** displays the additional user-specified change indicator while continuing to display the other change indicators. In some embodiments, in response to detecting the respective input, computer system **600** changes the application of the synthetic field-of-view (e.g., based on the input) to multiple frames of the video that start from the respective time in the video. In some embodiments, in response to detecting single tap input **650***ai*, computer system **600** displays an animation of transition indicator **688***i***1** gradually filling in from the position of user-specified change indicator **688***i* to the next change indicator (e.g., user-specified change indicator **688***c*) (e.g., gradually increasing in size by expanding from the right edge of the transition indicator). At FIG. **6**AJ, computer system **600** detects tap input **650***a* j on pause playback control **668***b*. In response to detecting tap input **650***a* j, computer system **600** pauses the playback of media.

As illustrated in FIG. **6**AK, media representation **660** is displayed with a representation of a frame that corresponds to the ten second mark of the video (e.g., as indicated by playhead **664***a***1** and elapsed time indicator **664***c*). In addition, playback control **668***a* is displayed at the location that pause playback control **668***b* was previously displayed in FIG. **6**AJ. At FIG. **6**AK, media representation **660** is a representation of the same frame in the captured media to which live preview **630** of FIG. **6**AL corresponds. Notably, media representation **660** of FIG. **6**AK is different from live preview **630** of FIG. **6**AL, which is due to media representation **660** being the frame with synthetic depth-of-field effect applied to emphasize Jane **634** relative to John **632** and live preview **630** being the frame with synthetic depth-of-field effect applied to emphasize John **632** relative to Jane **634**. When computer system **600** changes the application of depth-of-field effect due to an input detected on a frame of the video (e.g., a representation of a frame of the video), the computer system **600** also changes the application of depth-of-field effect applied to frames of the video that occur after the frame of the video on which the input was received. At FIG. **6**AK, computer system **600** detects tap input **650***a* k on user-specified change indicator **688***h*.

As illustrated in FIG. **6**AL, in response to detecting tap input **650***ak*, computer system **600** displays playhead **664***a***1** above user-specified change indicator **688***h*. By playhead **664***a***1** above user-specified change indicator **688***h*, playhead

664*a*1 is displayed at a location that corresponds to the time when the user-specified change (e.g., user-specified change represented by user-specified change indicator **688***h*) occurred in the captured video. In response to detecting tap input **650***a* k, computer system **600** updates media representation **660** to be a representation of the frame that displayed when the user-specified change occurred (e.g., as indicated by media representation **660** of FIG. **6**AL being live preview **630** of FIG. **6**Z with the synthetic depth-of-field effect applied to emphasize the focal plane and/or live preview **630** of FIG. **6**AA). At FIG. **6**AL, computer system **600** detects double tap input **650***a***1**.

As illustrated in FIG. **6**AM, in response to detecting double tap input **650***a***1**, computer system **600** changes the synthetic depth-of-field effect to emphasize John **632** relative to Jane **634**. Moreover, computer system **600** displays primary subject indicator **678***a* around the head of John **632** and secondary subject indicators **674***b*-**674***c* around the heads of Jane **634** and dog **638**, respectively. Because double tap input **650***a***1** is a double tap input, computer system **600** applies the synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** such that computer system **600** does not automatically change the synthetic depth-of-field effect applied as long as John **632** (e.g., the face of John **632**) can be detected in the visual content of the captured video (e.g., using one or more techniques as described above in relation to detecting double tap input **650***u*). Notably, computer system **600** performs (e.g., changes the synthetic depth-of-field effect in the same way, displays the same type of indicators) the same operations in response to detecting the same type of inputs, irrespective of whether computer system **600** is capturing media and/or editing media (e.g., performs the same operations described above in response to detecting single tap inputs **650***o*, **650***ai*, in response to detecting double tap inputs **650***u*, **650***a***1**, in response to detecting press-and-hold inputs). As shown by graph **680**, edit media playback line **680***d***3** has decoupled from media playback line **680***d***2** after the forty second mark to indicate that computer system **600** has changed the application of the synthetic depth-of-field effect in response to detecting double tap input **650***a***1** and when the change occurred. In particular, edit media playback line has been changed so that edit media playback line **680***d***3** is on activity tracker **680***a* (e.g., "John's Tracker") to represent that John **632** is being emphasized and tracked (and not a selected focal plane) in the edited media after the forty-two second mark (e.g., the frame of the media during which double tap input **650***a***1** was detected). In some embodiments, in response to detecting double tap input **650***a***1**, computer system **600** replaces user-specified change indicator **688***h* with a new user-specified change indicator.

FIG. **6**AN illustrates computer system **600** displaying media representation **660** that includes a representation of the captured video that occurs after previously captured media representation **660** of FIG. **6**AM. As illustrated in FIG. **6**AN, computer system **600** has applied the synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** in the representation of media shown by media representation **660** (e.g., media representation **660** is different from live preview **630** of FIG. **6**AB for similar reasons as discussed above in relation to FIG. **6**AK).

FIGS. **6**AO-**6**AP illustrate an exemplary embodiment where an option is displayed to remove a change in the application of the synthetic depth-of-field effect. At FIG. **6**AN, computer system **600** detects tap input **650***a* n on user-specified change indicator **688***h*. As illustrated in FIG. **6**AO, in response to detecting tap input **650***a* n, computer system **600** displays delete option **688***h***2** adjacent to user-specified change indicator **688***h* and deemphasizes (e.g., grey's out) scrubber region **664***a* and effects region **664***b*. Here, computer system **600** deemphasizes (e.g., grey's out) scrubber region **664***a* and effects region **664***b* to indicate that other portions (e.g., that do not include delete option **669***h***1**) are unavailable, inactive, and/or not responsive to user input. Computer system **600** makes the other portions unavailable, inactive, and/or not responsive to user input to avoid the possibility of a user causing the computer system to perform unintentional operations as the user attempts to select delete option **688***h***2**. In some embodiments, in response to detecting an input at a location that does not correspond to delete option **688***h***2**, computer system **600** reemphasis scrubber region **664***a* and effects region **664***b* and/or ceases to display delete option **688***h***2**. At FIG. **6**AO, computer system **600** detects tap input **650***ao* on delete option **688***h***2**. As illustrated in FIG. **6**AP, in response to detecting tap input **650***ao*, computer system **600** changes the application of the synthetic depth-of-field effect from emphasizing John **632** relative to Jane **634** and reemphasizes scrubber region **664***a* and effects region **664***b* (e.g., making scrubber region **664***a* and effects region **664***b* active). When computer system **600** changes the application of the synthetic depth-of-field effect from emphasizing John **632** relative to Jane **634**, computer system **600** reverts to the application of the synthetic depth-of-field effect that would have applied if the removed user-specified change had not occurred. Thus, at FIG. **6**AP, computer system **600** updates media representation **660** to emphasize Jane **634** relative to John **632** because the permanent change in the application of the synthetic depth-of-field effect was applied in response to detecting double tap input **650***u* (e.g., using one or more techniques as described above in relation to FIGS. **6**U-**6**Y). As shown by graph **680**, edit media playback line **680***d***3** has been changed to indicate that computer system **600** has changed the application of the synthetic depth-of-field effect in response to detecting tap input **650***a* n and when the change occurred. At FIG. **6**AP, computer system **600** detects tap input **650***ap***1** on cinematic video control **662***c*.

As illustrated in FIG. **6**AQ, in response to detecting tap input **650***ap***1**, computer system **600** displays cinematic video control **662***c* in an inactive state and ceases applying a synthetic depth-of-field effect to the captured video (e.g., which is indicated by media representation **660** having no shading) in the media editing user interface. In some embodiments, in response to detecting tap input **650***ap***1**, computer system **600** displays the change indicators as not being selectable (e.g., greyed-out) or ceases to display one or more of the change indicators. In some embodiments, in response to detecting an input directed to cinematic video control **662***c* of FIG. **6**AQ, computer system **600** reapplies the synthetic depth-of-field effect to the captured video in the media editing user interface. In some embodiments, in response to detecting a tap input on done control **662***a*, computer system **600** saves a version of the captured video that does not have the synthetic depth-of-field effect applied (e.g., a version of the captured video that only has natural blur for one or more and/or all of the of frames in the video). In some embodiments, in response to detecting tap input **650***ap***1**, computer system **600** ceases to display effects region **664***b* in region **664***d*. In some embodiments, computer system **600** moves scrubber region **664***a* down, where a portion of scrubber region **664***a* is moved down into region **664***d*. In some embodiments, computer system **600** expands the size of media representation **660** and/or scrubber region **664***a* in response to detecting tap input **650***ap***1**. In some embodiments, in response to detecting tap input **650***ap***1**, computer system **600** deemphasize effects region **664***b* and/or displays effects region **664***b* as being inactive.

FIG. **6**AR illustrates an exemplary embodiment where playhead **664***a***1** is dragged across scrubber region **664***a* such that playhead **664***a***1** snaps to locations that corresponds to the change indicators. As illustrated in FIG. **6**AR, rightward swipe input **650***a* r is detected at location **654***a*, computer system **600** displays playhead **664***a***1** is at location **654***a* because a determination was made that location **654***a* is not within a first predetermined distance away from the location that corresponds to user-specified change indicator **688***c* ("change indicator location") (e.g., and a determination is made that playhead **664***a***1** is not displayed at the change indicator location). When rightward swipe input **650***ar* is detected at location **654***b*, computer system **600** displays playhead **664***a***1** at the change location (e.g., above user-specified change indicator **688***c*), which is ahead of location **654***b* because a determination was made that location **654***b* is within a first predetermined distance away from the change indicator location (e.g., and a determination is made that playhead **664***a***1** is not displayed at the change indicator location). As illustrated in FIG. **6**AR, when playhead **664***a***1** is displayed at the change location, computer system issues output **656** (e.g., a haptic output (e.g., a vibration), sound). When rightward swipe input **650***ar* is detected at location **654***c*, computer system **600** continues to display playhead **664***a***1** at the change location because a determination was made that location **654***c* is not within a second predetermined distance away from the change indicator location (e.g., and a determination is made that playhead **664***a***1** is displayed at the change indicator location). When rightward swipe input **650***ar* is detected at location **654***d*, computer system **600** displays playhead **664***a***1** at location **654***d* because a determination was made that location **654***d* is within a second predetermined distance away from the change indicator location (e.g., and a determination is made that playhead **664***a***1** is displayed at the change indicator location). Thus, in some embodiments, the playhead snaps to a location associated with the change indicator when the playhead is close to a change indicator. Moreover, in some embodiments, the playhead sticks at a location associated with the change indicator until the playhead is a certain distance away from the change indicator. In some embodiments, the first predetermined distance and/or the second predetermined distance is a non-zero distance and/or a distance that is greater than a certain number of tick marks (e.g., 2-5 tick marks) away from the change location.

FIGS. **6**AS-**6**AU illustrate an exemplary embodiment where computer system **600** is transitioned from being configured to operate in the cinematic video camera mode to being configured to operate in a portrait camera mode. As illustrated in FIG. **6**AS, computer system **600** is configured to operate in the cinematic video camera mode (e.g., indicated by cinematic video mode control **620***e* being in the active state) and, while being configured to operate in the cinematic video camera mode, computer system **600** displays the camera user interface using one or more techniques as described above in relation to FIG. **6**B. In particular, as illustrated in FIG. **6**AS, computer system **600** is applying the synthetic depth-of-field effect to visual content being captured by the one or more cameras of computer system **600** to emphasize John **632** relative to Jane **634** (e.g., as indicated by the shading of live preview **630** in FIG. **6**AS). As illustrated in FIG. **6**AS, computer system **600** displays primary subject indicator **672***a* around the head of John **632** and secondary subject indicator **674***b* around the head of Jane **634**. At FIG. **6**AS, computer system **600** detects leftward swipe input **650***as* on camera mode controls **620**.

As illustrated in FIG. **6**AT, in response to detecting leftward swipe input **650***as*, computer system **600** moves camera mode controls **620** to the left so that portrait mode control **620***b* is displayed in the middle of the camera user interface. At FIG. **6**AT, computer system **600** displays portrait mode control **620***b* as being selected (e.g., bolds) and ceases to display cinematic video mode control **620***e* (e.g., which indicates that cinematic video mode control **620***e* as being not selected). Moreover, in response to detecting leftward swipe input **650***as*, computer system **600** is transitioned from being configured to operate in the cinematic video camera mode to a portrait camera mode. As illustrated in FIG. **6**AT, in response to detecting leftward swipe input **650***as*, computer system **600** compacts live preview **630**, where live preview **630** of FIG. **6**AT is smaller and has a different aspect ratio than live preview **630** of FIG. **6**AS. In addition to compacting live preview **630**, computer system **600** is updated to include lighting effect control **618**. Lighting effect control **618** indicates that a natural light effect is being applied to live preview **630** (e.g., as indicated by natural light control **618***a* and natural light indicator **618***a***1** being displayed). In some embodiments, when the natural light effect is applied to live preview **630**, a bokeh effect and/or lighting effect is used/applied when capturing media. In some embodiments, adjustments to lighting effect control **618** are also reflected in live preview **630**.

As illustrated in FIG. **6**AT, computer system **600** does not display any subject indicators (e.g., primary subject indicator **672***a*, secondary subject indicator **674***b*) to indicate that a respective subject is/is not being emphasized. While operating in the portrait camera mode, computer system **600** is not applying a synthetic depth-of-field effect to emphasize another subject relative to another subject. However, computer system **600** is applying a bokeh effect and/or lighting effect based on the natural light control **618***a* being selected (e.g., illustrated by the shading of live preview **630** of FIG. **6**AT) while operating in the portrait camera mode. At FIG. **6**AT, computer system **600** detects press-and-hold input **650***a* t on live preview **630**.

As illustrated in FIG. **6**AU, in response to detecting press-and-hold input **650***at*, computer system **600** displays focus and exposure control **696**, which includes exposure control indicator **696***a***1**. While displaying focus and exposure control **696**, computer system **600** also displays focus setting indicator **694***c* ("AE/AF LOCK") in indicator region **602**, which indicates that computer system **600** will not allow an auto-exposure setting and an auto-focus setting to change automatically. At FIG. **6**AU, in response to detecting press-and-hold input **650***at*, computer system **600** blurs portions of the display such that computer system **600** focuses on a location that corresponds to the location in which press-and-hold input **650***at* was received and blurs other portions of the region. In some embodiments, in response to detecting a swipe input on live preview **630**, computer system **600** adjusts an exposure setting based on the magnitude and direction of the swipe input.

In response to detecting a press-and-hold input, computer system **600** is configured to focus on a particular location in the FOV, irrespective of whether computer system **600** is operating in the cinematic camera mode (e.g., as discussed above in relation to the detection of press-and-hold input **650***z* in FIGS. **6**Z-**6**AA) or the portrait camera mode (e.g., as discussed above in relation to leftward swipe input **650***a* s in FIGS. **6**AS-**6**AU). In addition, the visual appearance of focus and exposure control **696** of FIG. **6**AU looks similar to focus indicator **676** of FIG. **6**AA. However, focus and exposure control **696** includes exposure control indicator **696***a***1** while focus indicator **676** does not. In addition, exposure control indicator **696***a***1** of FIG. **6**AU is also different than focus control indicator **694***b*. Exposure control indicator **696***a***1** indicates that computer system **600** has locked a focus setting (e.g., bokeh effect being applied in FIG. **6**AU) and an exposure setting while focus control indicator **694***b* only indicates that computer system **600** has locked a focus setting (e.g., the synthetic depth-of-field effect being applied in FIG. **6**AA). Thus, while computer system **600** is operating in the cinematic video camera mode, computer system **600** displays a control that indicates that computer system **600** is configured to focus on a particular location and that does allow computer system **600** to adjust and/or lock an exposure setting used to capture media (e.g., as discussed above in relation to FIGS. **6**Z-**6**AA). Moreover, while computer system **600** is operating in the portrait camera mode, computer system **600** displays a control that indicates that computer system **600** is configured to focus on a particular location and allows computer system **600** to adjust and/or lock an exposure setting used to capture media (e.g., as discussed above in relation to FIGS. **6**AS-**6**AU).

FIGS. **6**AV-**6**AY illustrate an exemplary embodiment where an automatic change to apply a synthetic depth-of-field effect is removed while editing the media. Looking back at FIG. **6**AP, computer system **600** detects one or more inputs that include tap input **650***ap***2** on cancel control **662***g* (e.g., as an alternative to detecting tap input **650***ap***1** as discussed above in relation to FIG. **6**AP). Turning to FIG. **6**AV, in response to detecting the one or more inputs that include tap input **650***ap***2**, computer system **600** discards the previous changes made to the media (e.g., changes to the application of one or more synthetic depth-of-field effects discussed above in relation to FIGS. **6**AD-**6**AP). In other words, computer system **600** resets the media to the condition that the media was in before it was edited in FIGS. **6**AD-**6**AP and/or after it was captured. Thus, at FIG. **6**AV, computer system **600** redisplays the cinematic video editing user interface of FIG. **6**AD that includes, among other things, change indicators **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, and **688***h* (the automatic and user-specified synthetic depth-of-field changes discussed above in relation to FIGS. **6**A-**6**AC). At FIG. **6**AV, computer system **600** detects tap input **650***a* v on automatic change indicator **686***b*.

As illustrated in FIG. **6**AW, in response to detecting tap input **650***av*, computer system **600** updates media representation **660** to a representation of the frame of the media that occurs at the seven second mark in the media (e.g., the frame of the media that corresponds to the occurrence of the automatic change to the synthetic depth-of-field indicated by automatic change indicator **686***b*). As shown by media representation **660** of FIG. **6**AW, computer system **600** has automatically applied a synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** at the seven second mark in the media. At FIG. **6**AW, computer system **600** detects tap input **650***aw* (or a press-and-hold input) on automatic change indicator **686***b*. As illustrated in FIG. **6**AX, in response to detecting tap input **650***aw*, computer system **600** displays delete option **686***b***2** adjacent to automatic change indicator **686***b* and deemphasizes (e.g., grey's out) scrubber region **664***a* and effects region **664***b* (e.g., using one or more similar techniques as discussed above in relation to FIGS. **6**AN-**6**AO). At FIG. **6**AX, computer system **600** detects tap input **650***ax* on delete option **686***b***2**.

As illustrated in FIG. **6**AY, in response to detecting tap input **650***ax*, computer system **600** removes automatic change indicator **686***b* of FIG. **6**AX and the automatic change to the synthetic depth-of-field effect that was applied at the seven second mark in the media. As a part of removing the automatic change to the synthetic depth-of-field effect, computer system **600** updates media representation **660** to show Jane **634** being emphasized relative to John **632** at the seven second mark in the media. Here, Jane **634** is being emphasized relative to John **632** because the automatic depth-of-field effect that corresponds to automatic change indicator **686***a* (e.g., which was most recent synthetic depth-of-field effect that was applied before the seven second mark) (e.g., as discussed in relation to FIGS. **6**D-**6**G) is now being applied to the frame of the media that occurs at the seven second mark in the media. Moreover, it should also be understood that the automatic synthetic depth-of-field effect that corresponds to automatic change indicator **686***a* applies to the other frames of the media that were captured between the time (e.g., 4 seconds) that corresponds to automatic change indicator **686***a* and the time (e.g., 12 seconds) that corresponds to user-specified change indicator **688***c*. Thus, when automatic change indicator **686***b* is removed, computer system **600** applies the synthetic depth-of-field effect that corresponds to automatic change indicator **686***a* to the frames of the media that previously had the synthetic depth-of-field effect that corresponds to automatic change indicator **686***b* applied. As shown by graph **680** of FIG. **6**AY, edit media playback line **680***d***3** has decoupled from media playback line **680***d***2** between the six second mark and the ten second mark to indicate the change to the synthetic depth-of-field effect that occurred in response to detecting tap input **650***ax* (e.g., edit media playback line **680***d***3** is on activity tracker **680***b*, "Jane's Tracker", between the six second mark and the ten second mark at FIG. **6**AY, which is different from the position of edit media playback line **680***d***3** during the corresponding timeframe in FIG. **6**AX).

FIGS. **6**AZ-**6**BC illustrate exemplary embodiments where computer system **600** detects one or more inputs on SDOFE control **662***d*. At FIG. **6**AY, computer system **600** detects tap input **650***ay* on user-specified change indicator **688***h*. As illustrated in FIG. **6**AZ, computer system **600** moves playhead **664***a***1** to right from the seven second mark to the forty-two second mark and updates media representation **660** to show the frame of the media that corresponds to the forty-two second mark (e.g., the frame that corresponds to user-specified change indicator **688***h*). As illustrated in FIG. **6**AZ, media representation **660** has a synthetic depth-of-field effect applied to emphasize a focal plane (e.g., as discussed above in relation to FIGS. **6**Z-**6**AB). At FIG. **6**AZ, because dog **638** is located within the focal plane (e.g., indicated by focus indicator **676**), dog **638** is emphasized relative to the other subjects in media representation **660** (e.g., as indicated by dog **638** having no shading in media representation **660**). In addition, John **632** is displayed with less blur than Jane **634** because John **632** is closer to the focal plane being emphasized than Jane **634** (e.g., as indicated by the shading of media representation **660**). At FIG. **6**AZ, computer system **600** detects tap input **650***a* z on SDOFE control **662***d*.

As illustrated in FIG. **6**BA, in response to detecting tap input **650***a* z, computer system **600** ceases to apply the changes in depth-of-field effect that corresponds to the user-specified changes (e.g., user-specified change indicators **688***c*, **688***e*, and **688***h* of FIG. **6**AZ) in the edited media. Moreover, in response to detecting tap input **650***az*, computer system **600** ceases to display user-specified change indicators **688***c*, **688***e*, and **688***h* and transition indicators **688***c***1**, **688***e***1**, and **688***h***1** because computer system **600** has been configured to not apply previously applied user-specified synthetic depth-of-field effect changes (e.g., in response to detecting tap input **650***az*). Notably, computer system **600** removes user-specified change indicators **688***c* and **688***e* without replacing them with another change indicator. However, at the forty-two second mark, computer system **600** replaces user-specified change indicator **688***h* of FIG. **6**AZ with automatic change indicator **686***ba* of FIG. **6**BA. Therefore, computer system **600** can insert an automatic change to the synthetic depth-of-field effect upon removing a user-specified change to the synthetic depth-of-field effect based on a determination that an automatic change to the synthetic depth-of-field effect should be made (e.g., using one or more techniques discussed below in relation to FIG. **12**). Here, this respective determination was made (e.g., the determination than an automatic change to the synthetic depth-of-field effect should be made) because activity level **680***a***1** ("John's activity level") was increased at the forty second mark relative to activity level **680***b***1** (Jane's activity level") and activity level **680***c***1** (the dog's activity level). Thus, as shown by media representation **660**, computer system **600** automatically applies a synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** and dog **638** at the forty-two second mark in the video based on this respective determination and because the user-specified change is no longer being applied at the forty-two second mark. In some embodiments, this respective determination is made while capturing the media (e.g., and/or before the user-specified change was removed) (e.g., as discussed below in relation to FIG. **12**). In some embodiments, this respective determination is saved during the capture of media so that it can be available to be applied (or reapplied) once a user-specified change is removed (e.g., as discussed below in relation to FIG. **12**). In some embodiments, a user-specified change can override a saved automatic change to the synthetic depth-of-field effect (e.g., as discussed below in relation to FIG. **12**). In some embodiments, this respective determination is made after the user-specified change was removed. At FIG. **6**BA, computer system **600** detects leftward swipe gesture **650***b* a on playhead **664***a***1**.

As illustrated in FIG. **6**BB, in response to detecting leftward swipe gesture **650***ba*, computer system **600** moves playhead **664***a***1** to the left from the location that corresponds to forty-two seconds in the media to a location that corresponds to thirty-four seconds in the media. As illustrated in FIG. **6**BB, in response to detecting leftward swipe gesture **650***ba*, computer system **600** updates media representation **660** to show the frame of the media that corresponds to thirty-four seconds in the media. At the thirty-four second mark, computer system **600** has a synthetic depth-of-effect applied that emphasizes John **632** relative to wagon **628** (e.g., as discussed above in relation to FIG. **6**W). In some embodiments, in response to detecting input **650***bb***1** on SDOFE control **662***d*, computer system **600** reapplies the user-specified depth-of-field changes to the representation of the media and redisplays user-specified change indicators **688***c*, **688***e*, and **688***h* and transition indicators **688***c***1**, **688***e***1**, and **688***h***1** (e.g., the edited media and the cinematic video editing user interface goes back to the state shown in FIG. **6**AZ and/or before tap input **650***az* was detected). At FIG. **6**BB, computer system **600** detects input **650***bb***2** on wagon **628**.

As illustrated in FIG. **6**BC, in response to detecting input **650***bb***2** and based on a determination that input **650***bb***2** is a press-and-hold input, computer system **600** changes the synthetic depth-of-field effect to emphasize the focal plane that is at the location of press-and-hold input **650***bb***2** (starting from the forty-two second mark in the media). Moreover, computer system **600** displays user-specified change indicator **688***j* and transition indicator **688***j***1** at a location in effects region **664***b* that corresponds to the forty-two second mark in the media. As illustrated in FIG. **6**BC, in response to detecting input **650***bb***2** and based on a determination that input **650***bb***2** is a press-and-hold input, computer system **600** also displays focus setting indicator **694***bc* ("AF LOCK—5M"), which includes an indication (e.g., "5M") of a distance between the computer system **600** and the currently selected focal plane (e.g., focal plane selected by input **650***bb***2**). After applying the synthetic depth-of-field effect that emphasizes the focal plane at FIG. **6**BC, media representation **660** shows wagon **628** being emphasized relative to John **632** and Jane **634**. Here, wagon **628** is emphasized relative to John **632** and Jane **634** in media representation **660** because wagon **628** is located in the emphasized focal plane. Notably, computer system **600** ceases to display automatic change indicators **686***g* and **686***ba* of FIG. **6**BB because a determination was made that the automatic change to the synthetic depth-of-field effect that corresponds to automatic change indicator **686***g* was not needed. Looking back at FIG. **6**W, the automatic change to the synthetic depth-of-field effect that corresponds to automatic change indicator **686***g* was made because a determination was made that Jane **634** (e.g., a currently emphasized subject) was outside of the field-of-view of one or more cameras of computer system **600**. However, Jane **634** is no longer being emphasized immediately before the time that corresponds to automatic change indicator **686***g* by a synthetic depth-of-field effect. Accordingly, at FIG. **6**BC, because Jane **634** is no longer being emphasized, computer system **600** removes the automatic change to the synthetic depth-of-field effect that was made because a currently emphasized subject (e.g., Jane **634**) could not be detected within the field-of-view of one or more cameras of computer system **600**. Computer system **600** removes automatic change indicator **686***ba* for similar reasons (e.g., because the user specified that a focal plane is emphasized, the computer system determines that there is no need to implement a change to emphasize a subject in the media via the application of a synthetic depth-of-field effect). Thus, as illustrated in FIGS. **6**BB-**6**BC, computer system **600** can remove changes to the synthetic depth-of-field effect in response to a user-specified change to the synthetic depth-of-field effect during the editing of captured media. At FIG. **6**BC, media representation **661***bc***1** (e.g., frame of the edited media at the thirty-six second mark) and media representation **661***bc***2** (e.g., frame of the edited media at the forty-two second mark) are provided to show that the user-specified change to the synthetic depth-of-field effect that emphasizes the focal plane has been applied to frames of the media that occur after the time at which input **650***bb***2** was detected in the video (e.g., and that the changes to the synthetic depth-of-field effect that correspond to automatic change indicators **686***g* and **686***ba* of FIG. **6**BB are no longer applied) (e.g., also shown by edit media playback line **680***d***3**). As shown in media representations **661***bc***1** and **661***bc***2**, subjects (e.g., John **632**, Jane **634**, and/or dog **638**) that are not in the focal plane (e.g., indicated by focus indicator **676**) are not emphasized.

As illustrated in FIG. **6**BC, in response to input **650***bb***2**, computer system **600** transitions SDOFE control **662***d* from being in an inactive state (e.g., in FIG. **6**BB) to being in an active state (in FIG. **6**BC). Thus, at FIG. **6**BC, computer system **600** is configured to apply user-specified changes to the synthetic depth-of-field effect. However, in FIG. **6**BC, user-specified change indicators **688***c*, **688***e*, and **688***h* of

FIG. **6**AZ are not applied because a user-specified change to the synthetic depth-of-field effect was added (e.g., the user-specified change that was added in response to detecting input **650***bb***2**) while SDOFE control **662***d* was in the inactive state (and/or while the computer system is not configured to apply user-specified changes to the synthetic depth-of-field effect). In other words, at FIG. **6**BC, the user-specified change added in response to detecting input **650***bb***2** overrides the previous user-specified changes to the synthetic depth-of-field effect (e.g., changes that were applied before the computer system was not configured to apply user-specified changes to the synthetic depth-of-field effect). In some embodiments, instead of overriding the previous user-specified changes, computer system **600** displays user-specified change indicators **688***c*, **688***e*, and **688***h* along with user-specified change indicator **688***j* and applies changes to the synthetic depth-of-field effect that correspond to user-specified change indicators **688***c*, **688***e*, **688***h*, and **688***j*.

FIG. **6**BC**1** illustrates an alternative situation to the situation described, in some embodiments, in FIG. **6**BC. Where in FIG. **6**BC, computer system **600** detected an input corresponding to selection of an object for which the computer system determined that the computer system did not have sufficient data to track the object through at least a predetermined portion of the video (e.g., through multiple frames in the video) (e.g., response to input **650***bb***2** being a tap input at FIGS. **6**BB-**6**BC), in FIG. **6**BC**1**, computer system **600** detects an input corresponding to selection of an object for which the device determined that the device does have sufficient data to track the object through at least the predetermined portion of the video. Thus, at FIG. **6**BC**1**, in response to detecting input **650***bb***2** and based on a determination that input **650***bb***2** is a tap input, a determination is made that a user has requested to focus on wagon **628**, which has not been tracked by computer system **600** (e.g., there is no focus indicator (e.g., like **674***a* and/or **674***b*) displayed around wagon **628** in FIG. **6**BB), and for which, there is sufficient data to track the object through at least the predetermined portion of the video. Because the determination is made that wagon **628** has not been tracked by computer system **600** and a user has requested to focus on wagon **628**, computer system **600** displays the user interface of FIG. **6**BC**1**, which includes tracking progress indicator **694***bc***1**, tracking focus indicator **674***d*, cancel control **688***n***3**, temporary user-specific change indicator **688***n*, and temporary transition indicator **688***n***1** to indicate that the request is being processed. As illustrated in FIG. **6**BC**1**, in response to detecting input **650***bb***2** and based on a determination that input **650***bb***2** is a tap input, computer system **600** also deemphasizes scrubber region **664***a* and effects region **664***b* to indicate that the request to focus on wagon **628** is being processed. At FIG. **6**BC**1**, computer system **600** processes the request based whether there is enough information to track and focus on wagon **628** based on the visual content in the captured media. In some embodiments, based on a determination that is made that there is enough information to track and focus on wagon **628**, computer system **600** applies a synthetic depth-of-field effect to emphasize wagon **628** relative to other subjects in the media (e.g., using one or more similar techniques as discussed above in relation to computer system **600** detecting a single tap input and/or a double tap input and/or as illustrated in FIG. **6**BC**2**) and a new tracker (e.g., Tracker **4** in FIG. **6**BC**2**) is shown to indicate that the wagon is available to be emphasized and tracked through a portion of the media (e.g., applying a synthetic depth-of-field effect that emphasizes the wagon over other portions of the media). In some embodiments, media representation **661***bc***1** that shows wagon **628** being emphasized is displayed at the thirty-five second time mark when determination that is made that there is enough information to track and focus on wagon **628** (and/or media representation **661***bc***2** is displayed at the thirty-six second time mark to show that no subjects are being emphasized when wagon **628** leaves the FOV for a brief period of time, as discussed above in relation to FIG. **6**R**1**). In some embodiments, based on a determination that is made that there is not enough information to track and focus on wagon **628**, computer system **600** applies a synthetic depth-of-field effect to emphasize a focal plane at the location of input **650***bb***2** (e.g., using one or more similar techniques as discussed above in relation to FIG. **6**BC). In some embodiments, in response to detecting an input on cancel control **688***n***3**, computer system **600** cancels the request to focus on wagon **628** and redisplays the user interface of FIG. **6**BB. In some embodiments, in response to detecting an input on cancel control **688***n***3**, computer system **600** applies a synthetic depth-of-field effect to emphasize a focal plane at the location of input **650***bb***2** (e.g., using one or more similar techniques as discussed above in relation to FIG. **6**BC) and/or displays the user interface of FIG. **6**BC. In some embodiments, computer system **600** displays one or more objects (e.g., tracking progress indicator **694***bc***1**, temporary user-specific change indicator **688***n*, temporary transition indicator **688***n***1**, and/or media representation **660**) displayed in FIG. **6**BC**1** pulsating for a predetermined period of time and/or a portion (one or more corners) of the one or more objects (e.g., while processing the request to focus on, apply a synthetic depth-of-field effect to emphasize wagon **628**, and/or to indicate that computer system **600** is focusing on wagon **628**). In some embodiments, the size of temporary transition indicator **688***n***1** changes over a predetermined period of time (e.g., extends and/or moves along effects region **664***b* to the next change indicator) while computer system **600** indicates that the request is being processed.

FIGS. **6**BD-**6**BE illustrate an exemplary embodiment where a user-specified change to apply a synthetic depth-of-field effect is added to the edited media, which leads to one or more other synthetic depth-of-field effect changes being removed from the edited media. Looking back at FIG. **6**BC, computer system **600** detects one or more inputs that include tap input **650***bc* on cancel control **662***g*. As illustrated in FIG. **6**BD, in response to detecting the one or more inputs that include tap input **650***bc*, computer system **600** discards the previous changes (e.g., changes made in FIGS. **6**AV-**6**B made to the media), using one or more similar techniques as discussed above in relation to detecting tap input **650***ap***2**. At FIG. **6**BD, in response to detecting the one or more inputs that include tap input **650***bc*, computer system **600** redisplays the cinematic video editing user interface of FIG. **6**AD that includes, among other things, change indicators **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, and **688***h* (the automatic and user-specified synthetic depth-of-field changes discussed above in relation to FIGS. **6**A-**6**AC). As illustrated in FIG. **6**BD, computer system **600** is displaying primary subject indicator **672***a* around the head of John **632** and secondary subject indicator **674***b* around the head of Jane **634** in media representation **660** at a time that corresponds to zero seconds in the media (e.g., shown by the position of playhead **664***a***1**). As discussed above (e.g., in relation to FIG. **6**S), primary subject indicator **672***a* being shown around the head of John **632** indicates that computer system **600** is applying a temporary change to the synthetic depth-of-field effect to emphasize John **632** relative to Jane

634, which is represented by the shading in media representation **660**. At FIG. **6**BD, computer system **600** detects single tap input **650***bd* on John **632**.

As illustrated in FIG. **6**BE, in response to detecting single tap input **650***bd*, computer system **600** applies a respective non-temporary synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** such that computer system **600** does not automatically change the synthetic depth-of-field effect applied as long as John **632** (e.g., the face of John **632**) can be detected in the visual content of the captured video (e.g., using one or more techniques as described above in relation to detecting double tap input **650***u* and FIGS. **6**R**1** and **6**N-**6**Z). Computer system **600** applies the respective non-temporary synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** in response to detecting single tap input **650***bd* because John **632** was already being emphasized when single tap input **650***bd* was detected. Thus, computer system **600** can apply a non-temporary change to emphasized a subject based on a double tap input (e.g., the second type of input, as discussed above in relation to FIGS. **6**S and **6**U) and/or in response to detecting a single tap input (e.g., the first type of input, as discussed above in relation to FIG. **6**N-**6**S) on a subject that is already being emphasized (and/or in focus) by a synthetic depth-of-field effect in the media.

As illustrated by media representation **660** in FIG. **6**BE, in response to detecting single tap input **650***bd*, computer system **600** replaces primary subject indicator **672***a* with primary subject indicator **678***a* to indicate that the change to the synthetic depth-of-field effect is not a temporary change to the synthetic depth-of-field effect. Because computer system **600** has applied the respective non-temporary synthetic depth-of-field effect to emphasize John **632** relative to Jane **634**, computer system **600** inserts user-specified change indicator **688***k*, at a location on effects region **664***b* that corresponds to the zero second mark, and transition indicator **688***k***1**. In addition, computer system **600** removes automatic transition indicators **686***a* and **686***b* of FIG. **6**BD because a respective determination is made that the automatic changes to the synthetic depth-of-field effect that correspond to automatic transition indicators **686***a* and **686***b* are not needed. Here, the respective determination is made because John **632** can be detected in the visual content of the captured media between zero seconds and ten seconds, so a change in synthetic depth-of-field to emphasize another subject (e.g., other than John **632**) in the media is not needed. Notably, computer system **600** maintains user-specified change indicator **688***c* because computer system **600** determines that the user-specified change indicator **688***c* continues to be needed (e.g., user desires to emphasize Jane **634** at the twelve second mark although user wants to emphasize John **632** at the zero second mark). As shown by graph **680** of FIG. **6**BE, edit playback line **680***d***3** has decoupled from media playback line **680***d***2** around the two second mark to indicate that computer system **600** has changed the application of the synthetic depth-of-field effect in response to detecting single tap input **650***bd* and when the changed occurred. In particular, edit playback line **680***d***3** has been changed so that edit media playback line **680***d***3** stays on activity tracker **680***a* (e.g., "John's Tracker") to represent that John **632** is being emphasized and tracked (and not Jane) between the zero second mark and the ten second mark in the edited media. Moreover, at FIG. **6**BE, media representation **661***be***1** is displayed to show that a synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** has been applied (e.g., instead of emphasizing Jane **634** relative to John **632** as described above in relation to FIGS. **6**O-**6**Q at the seven second mark) (e.g., the respective non-temporary change to the synthetic depth-of-field effect applies to frames after transition).

FIGS. **6**BF-**6**BG illustrate an exemplary embodiment where a user-specified change to apply a synthetic depth-of-field effect is removed from edited media, which leads to one or more other more synthetic depth-of-field effect changes being removed from the edited media. At FIG. **6**BE, computer system **600** detects press-and-hold input **650***be* on user-specified change indicator **688***c*. As illustrated in FIG. **6**BF, in response to detecting press-and-hold input **650***be*, computer system **600** displays delete option **688***c***2** adjacent to user-specified change indicator **688***c* and deemphasizes (e.g., greys out) scrubber region **664***a* and effects region **664***b* (e.g., using one or more similar techniques as discussed above in relation to FIGS. **6**AN-**6**AO). At FIG. **6**BF, computer system **600** detects tap input **650***bf* on delete option **688***c***2**.

As illustrated in FIG. **6**BG, in response to detecting tap input **650***b* f, computer system **600**, removes user-specified change indicator **688***c* and the synthetic depth-of-field effect change that corresponds to user-specified change indicator **688***c*. Thus, at FIG. **6**BG, media representation **660** has been updated so that John **632** is emphasized relative to Jane **634** (e.g., as opposed to Jane **634** being emphasized in FIG. **6**BF before tap input **650***bf* was detected). As illustrated in FIG. **6**BG, the respective non-temporary change to the synthetic depth-of-field effect (discussed above in relation to FIG. **6**BE) is applied at the twelve second mark in the media (e.g., as indicated by primary subject indicator **678***a* and secondary subject indicator **674***b*). As illustrated in FIG. **6**BG, in addition to removing the change to the synthetic depth-of-field effect that corresponds to user-specified change indicator **688***c* of FIG. **6**BF, computer system **600** also removes automatic change indicator **686***d* of FIG. **6**BF and ceases to apply the changes to the synthetic depth-of-field effect that correspond to automatic change indicator **686***d* (e.g., a change to emphasize John) of FIG. **6**BF. At FIG. **6**BG, computer system **600** removes automatic change indicator **686***d* because a determination is made that the automatic change to the synthetic depth-of-field effect is not needed (e.g., because John **632** would already be emphasized at the seventeen second mark after the change to the synthetic depth-of-field effect, a change to emphasize Jane **634**, that corresponds to user-specified change indicator **688***c* is removed) (e.g., using similar techniques as discussed above in relation to FIG. **6**BC). As shown by graph **680** of FIG. **6**BG, edit playback line **680***d***3** has decoupled from media playback line **680***d***2** around the twelve second mark to indicate that computer system **600** has changed the application of the synthetic depth-of-field effect in response to detecting tap input **650***bf* and when the change occurred. In particular, edit media playback line **680***d***3** has been changed so that edit media playback line **680***d***3** stays on activity tracker **680***a* (e.g., "John's Tracker") to represent that John **632** is being emphasized and tracked (and not Jane) between the twelve second mark and the seventeen second mark in the edited media. Moreover, at FIG. **6**BG, media representation **661***bg***1** and media representation **661***bg***2** are shown to indicate that synthetic depth-of-field effect to emphasize John **632** relative to Jane **634** (e.g., instead of emphasizing Jane **634** relative to John as described above in relation to FIGS. **6**O-**6**Q at the seventeen second mark) (e.g., the respective non-temporary change to the synthetic depth-of-field effect applies to frames after transition). In some embodiments, in response to detecting tap input **650***b* f, computer system **600** removes user-specified change indicator **688***e* because a determination is made that the user-specified change is not needed due to John **632** already being emphasized (e.g., by the synthetic depth-of-field effect that corresponds to user-specified change indicator **688***k*). In some embodiments, upon removing automatic change indicator **686***d* of FIG. **6**BF, computer system **600** displays an animation of transition indicator **688***k***1** expanding to the right, towards the position of user-specified change indicator **688***e*.

FIGS. **6**BH-**6**BI illustrate an exemplary embodiment where a user-specified change to apply a synthetic depth-of-field effect is added to the edited media, which leads to one or more other one or more synthetic depth-of-field effect changes being added to the edited media. At FIG. **6**BG, computer system **600** detects swipe input **650***bg* on playhead **664***a***1**. As illustrated in FIG. **6**BH, in response to detecting swipe input **650***bg*, computer system **600** displays playhead **664***a***1** at a location on scrubber region **664***a* that corresponds to the thirteen second mark in the captured media. In response to detecting swipe input **650***bg*, computer system **600** updates media representation **660** to be a representation of the frame that displayed at the thirteen second mark in the media. At FIG. **6**BH, media representation **660** shows that a synthetic depth-of-field effect has been applied to the frame at the thirteen second mark to emphasize John **632** relative to Jane **634** (e.g., as discussed above in relation to user-specified change indicator **688***k*). At FIG. **6**BH, computer system **600** detects single tap input **650***bh* on Jane **634**.

As illustrated in FIG. **6**BI, in response to detecting single tap input **650***bh*, computer system **600** updates media representation **660** and applies a respective temporary synthetic depth-of-field effect to emphasize Jane **634** relative to John **632** such that computer system **600** automatically changes the synthetic depth-of-field effect applied when Jane **634** (e.g., the face of Jane **634**) can no longer be detected in the visual content of the captured video (e.g., using one or more techniques as described above in relation to FIGS. **6**R and FIG. **6**R**1**). In response to detecting single tap input **650***bh*, computer system **600** displays primary subject indicator **672***b* around the head of Jane **634** and secondary subject indicator **674***a* around the head of John **632**, where primary subject indicator **672***b* indicates that Jane **634** is temporarily being emphasized in the media (e.g., as discussed above in relation to FIG. **6**R). As illustrated in FIG. **6**BI, in response to detecting single tap input **650***bh*, computer system **600** displays user-specified change indicator **688***m* at and transition indicator **688***m***1** that starts from the thirteen second mark in the media. Along with adding user-specified change indicator **688***m*, computer system **600** also adds automatic change indicator **686***d* back at seventeen seconds because a determination is made that an automatic change to the synthetic depth-of-field effect is needed. Here, computer system **600** adds automatic change indicator **686***d* and applies a synthetic depth-of-field effect at seventeen seconds in the media because Jane **634** cannot be detected in the visual content of the captured video around the seventeen second mark in the media (e.g., using one or more similar techniques as discussed above in relation to FIG. **6**R). Thus, in some embodiments, when changing and/or adding a user-specified change to a synthetic depth-of-field effect, one or more other change indicators can be added and/or one or more other changes to the synthetic depth-of-field effect can be applied (e.g., at a time after the user-specified change to a synthetic depth-of-field effect). Media representations **661***bi***1** and **661***bi***2** are provided to show that John **632** is being emphasized relative to Jane **634** after the automatic change to the synthetic depth-of-field effect is applied that corresponds to automatic change indicator **686***d*. As discussed above in relation to FIGS. **6**R**1** and **6**Y, at seven seconds, Jane **634** is being tracked although she is outside of the captured visual content that corresponds live preview **630** of FIG. **6**R**1** and/or **6**Y (and/or media representation **660** of FIG. **6**BI). However, as discussed in relation to FIG. **6**R**1**, Jane **634** will only continue to be tracked by computer system **600** for a predetermined period of time (e.g., 0.5-5 seconds). In some embodiments, based on a determination that Jane **634** is not within the captured visual content that corresponds live preview **630** of FIG. **6**R**1** (and/or media representation **660** of FIG. **6**BI), computer system **600** will stop tracking Jane **634**.

FIGS. **6**BI-**6**BJ illustrate an exemplary embodiment where a user-specified change to apply a synesthetic depth-of-field effect is changed, which leads to one or more synthetic depth-of-field effect changes being removed from the edited media. At FIG. **6**BI, computer system **600** detects press-and-hold input **650***bi* on flower **698**. As illustrated in FIG. **6**BJ, in response to press-and-hold input **650***bi*, computer system **600** changes the synthetic depth-of-field effect to emphasize the focal plane that is at the location of press-and-hold input **650***bi* (starting from the thirteen second mark in the media). As illustrated in FIG. **6**BJ, in response to detecting press-and-hold input **650***bi*, computer system **600** also displays focus setting indicator **694***bj* ("AF LOCK—0.4M"), which includes an indication (e.g., "0.4M") of a distance (e.g., 0.4 meters) between the computer system **600** (e.g., one or more cameras of computer system **600**) and the currently selected focal plane (e.g., focal plane selected by press-and-hold input **650***bi*). After applying the synthetic depth-of-field effect that emphasizes the focal plane at FIG. **6**BJ, computer system **600** displays, via media representation **660**, flower **698** being emphasized relative to John **632** and Jane **634**. Notably, computer system **600** ceases to display automatic change indicator **686***d* of FIG. **6**BI because a determination was made that the automatic change to the synthetic depth-of-field effect that corresponds to automatic change indicator **686***d* was not needed (e.g., using one or more techniques as discussed above to cease to display automatic change indicator **686***g* of FIGS. **6**BB-**6**BC).

At FIG. **6**BJ, media representation **661***bj***1** (e.g., frame of the edited media at the seventeen second mark) and media representation **661***bj***2** (e.g., frame of the edited media at the twenty second mark) are provided to show that the user-specified change to the synthetic depth-of-field effect that emphasizes the focal plane has been applied to frames of the media that occur after the time at which press-and-hold input **650***bi* was detected in the video (e.g., and that the changes to the synthetic depth-of-field effect that correspond to automatic change indicator **686***d* of FIG. **6**BI is no longer applied) (e.g., also shown by edit media playback line **680***d***3**). As shown in media representations **661***bj***1** and **661***bj***2**, subjects (e.g., John **632** and Jane **634**) that are not in the focal plane (e.g., indicated by focus indicator **676**) are not emphasized. Notably, the selected focal plane in FIG. **6**BJ is a different distance from the computer system than the focal plane that was selected in FIG. **6**BC (e.g., 0.4M in FIG. **6**BJ versus 5M in FIG. **6**BC). In some embodiments, computer system **600** displays an animation of the transition of the synthetic depth-of-field of a focal plane being applied. In some embodiments, the animation is longer when the focal plane is a further distance from computer system **600** (e.g., animation of transition is longer between FIGS. **6**BB and FIG. **6**BC than the animation of transition in FIGS. **6**BI-**6**BJ). In some embodiments, the animation is longer when a focal plane that corresponds to an emphasized subject is further away from a focal plane that is selected (e.g., in response to a press-and-hold input). In some embodiments, the animation is shorter when a focal plane that corresponds to an emphasized subject is closer to a focal plane that is selected (e.g., in response to a press-and-hold input).

FIG. **7** is a flow diagram illustrating an exemplary method for altering visual media using a computer system in accordance with some embodiments. Method **700** is performed at a computer system (e.g., **100**, **300**, **500**, and/or **600**) (e.g., a smartphone, a desktop computer, a laptop, and/or a tablet) that is in communication with one or more cameras (e.g., one or more cameras (e.g., dual cameras, triple camera, quad cameras, etc.) on the same side or different sides of the computer system (e.g., a front camera, a back camera) and/or one or more input devices (e.g., a touch-sensitive surface and/or). In some embodiments, the computer system is in communication with a display generation component (e.g., a display controller, a touch-sensitive display system). Some operations in method **700** are, optionally, combined, the orders of some operations are, optionally, changed, and some operations are, optionally, omitted.

As described below, method **700** provides an intuitive way for altering visual media. The method reduces the cognitive burden on a user for altering visual media, thereby creating a more efficient human-machine interface. For battery-operated computing devices, enabling a user to alter visual media faster and more efficiently conserves power and increases the time between battery charges.

The computer system (e.g., **600**) detects (**702**), via the one or more input devices, a request (e.g., **650***b***2**) (e.g., a tap gesture on a selectable user interface object for capturing media (e.g., **610**)) (and/or, in some embodiments, a non-tap gesture (e.g., a press-and-hold gesture, a swipe gesture) directed to a selectable user interface object for capturing media) to capture a video (e.g., video media) representative of a field-of-view of the one or more cameras.

In response to detecting the request (e.g., **650***b***2**) to capture the video, the computer system (e.g., **600**) captures (**704**) (or initiates capture of) (e.g., via the one or more cameras) the video over a first capture duration (e.g., **602***d*). The video includes a plurality of frames (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB) (e.g., sequence of frames (e.g., images)) that are captured over the first capture duration. The plurality of frames represent (e.g., include, show) a first subject (e.g., **632**, **634**, **638**) in the field-of-view of the one or more cameras (e.g., people, animals, other subjects (e.g., other subjects with faces), objects) and a second subject (e.g., **632**, **634**, **638**) in the field-of-view of the one or more cameras. In the plurality of frames, the first subject (e.g., **634**) is moving relative to the field-of-view of the one or more cameras over the first capture duration.

The computer system applies (**706**) (e.g., during the capture of the video (e.g., during the capture of the video over a second capture duration that is longer than the first capture duration) and/or before ceasing capture of the video (e.g., in response to detecting an gesture on a selectable user interface object for stopping the capture of the media), after the capture of the video and/or after ceasing capture of the video), to the plurality of frames of the video (e.g., **630**, **640**, and/or **660**), a synthetic (e.g., computer-generated and/or computer-generated and applied after capture of a frame of the video), depth-of-field effect that alters visual information (e.g., visual content) captured by the one or more cameras to emphasize (and/or that emphasizes) (e.g., visually emphasize) the first subject (e.g., **632**, **634**, **638**) in the plurality of frames of the video relative to the second subject (e.g., **632**, **634**, **638**) (e.g., people, animals, other subjects (e.g., other subjects with faces), objects) in the plurality of frames of the video, where the synthetic depth-of-field effect changes (e.g., a magnitude and/or location of the synthetic depth of field effect changes) over time (e.g., over the first capture duration) as the first subject (e.g., **634**) moves within the field-of-view of the one or more cameras (and the first subject continues to be emphasized relative to the second subject in each of the plurality of frames). In some embodiments, the synthetic depth of field effect changes through a plurality of intermediate states. In some embodiments, the synthetic (e.g., computer-generated), depth-of-field effect adjusts the captured video such that it appears that the one or more frames of the video have been captured with a camera that has a different aperture (e.g., physical aperture, effective aperture) and/or focal length (e.g., physical focal length, effective focal length) than the aperture and/or focal length of the one or more cameras (e.g., the one or more cameras that actually captured the video). In some embodiments, applying the synthetic depth-of-field effect to emphasize the first subject in video relative to a second subject in the plurality of frames of the video includes applying an amount of blur (or synthetic bokeh) to the second subject that is greater than the amount of blur (or synthetic bokeh) applied to the first subject. In some embodiments, when playing back the captured media, the second subject is appears to be blurred more than the first subject. In some embodiments, while capturing the video (and/or before ceasing capture of the video), the computer system displays (e.g., consecutively displays) the plurality of frames. In some embodiments, the changes in the synthetic depth of field effect over time are representative of changes in video recorded that capture the movement of the first subject over time. In some embodiments, the synthetic depth-of-field effect is applied in response to detecting the request to capture the video. Applying, to the plurality of frames of the video, a synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video, where the synthetic depth-of-field effect changes in the plurality of frames of the video, where the synthetic depth-of-field effect changes as the first subject moves within the field-of-view of the one or more cameras (e.g., in response to a gesture) reduces the number of inputs that a user need to provider to apply a synthetic depth-of-field effect. Reducing the number of operations enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, applying, to the plurality of frames of the video, the synthetic depth-of-field effect includes displaying a first set of frames (e.g., at a first time, during a first duration of time of the video, a first continuous duration of time in the video, a first part of the video) of the plurality of frames (e.g., of the plurality of frames of the video) (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB). In some embodiments, displaying the first set of frames (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB) includes (and/or modifying the first set of frames of the video to include) displaying the second subject (e.g., **634**) at a first distance from (e.g., from a viewpoint (e.g., a position a frame of the video that corresponds to or is the position of the one or more cameras that captured the visual information of the frame) of the one or more cameras) the one or more cameras and with a first amount of blur (e.g., an amount of fading, appearing fuzziness, appearing out of focus). In some embodiments, the first amount of blur is based on the second subject being at the first distance from the one or more cameras. In some embodiments, the second subject is a respective distance from the first subject in the first set of frames. In some embodiments, the first set of frames includes one frame. In some embodiments, the first set of frames includes multiple frames in a continuous segment of the video, where the continuous segment of the video spans across the first set of frames. In some embodiments, applying, to the plurality of frames of the video (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB), the synthetic depth-of-field effect (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB) includes displaying a second set of frames (e.g., after displaying the first set of frames, at a second time different than the first time) of the plurality of frames. In some embodiments, displaying the second set of frames includes (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB) (and/or modifying the second set of frames of the video to include) displaying the second subject (e.g., **634**) at a second distance from (e.g., the viewpoint of) the one or more cameras and with a second amount of blur (e.g., an amount of fading, appearing fuzziness, appearing out of focus) that is different from the first amount of blur. In some embodiments, the first distance is different from the second distance. In some embodiments, the second amount of blur is based on the second subject being at the second distance from the one or more cameras. In some embodiments, in accordance with a determination that the second subject is at a first respective distance from the one or more cameras in a first set of frames of the video, the computer system displays the second subject with the first blur; and in accordance with a determination that the second subject is at a second respective distance from the one or more cameras in the first set of frames of the video, where the second respective distance from the one or more cameras in the first set of frames is different from the first respective distance from the one or more cameras in the first set of frames, the computer system displays the second subject with the second amount of blur that is different from the first amount of blur. In some embodiments, in accordance with a determination that the second subject is at the first respective distance from the one or more cameras in a second set of frames of the video, the computer system displays the second subject with the first amount of blur. In some embodiments, the second subject is a respective distance from the first subject in the second set of frames that is greater than the respective distance between the first subject and the subject in the first set of frames. In some embodiments, the second set of frames includes one frame. In some embodiments, the second set of frames includes multiple frames in a continuous segment of the video, where the continuous segment of the video spans across the second set of frames. In some embodiments, the continuous segment of the video that corresponds to the first set of frames is different from the continuous segment of the video that corresponds to the second set of frames. Displaying frames with different amounts of blur as a part applying, to the plurality of frames of the video, the synthetic depth-of-field effect the user with feedback how a synthetic depth-of-field effect that is applied to the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, when (e.g., after and/or while the synthetic depth-of-field effect is applied) applying the synthetic depth-of-field effect, the first subject (e.g., **632**, **634**, **638**) is displayed (e.g., in one or more frames of the plurality of frames of the video) with a third amount (e.g., greater than or equal to zero) of blur and the second subject (e.g., **632**, **634**, **638**) is displayed (e.g., in the one or more frames) with a fourth amount (e.g., a non-zero amount) of blur that is greater than the third amount of blur (e.g., as described above in relation to FIGS. **6**C-**6**AB). Displaying a first subject and a second subject with different amount of blur allows the user with feedback concerning which subject is being emphasized by the synthetic depth-of-field effect. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, applying, to the plurality of frames of the video (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB), the synthetic depth-of-field effect includes applying a fifth amount of blur to a first portion (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB) (e.g., an area of the scene and/or an object, an element, a subject in the scene) of a third frame (e.g., first frame, second frame, and/or another frame of the video) of the plurality of frames. In some embodiments, applying, to the plurality of frames of the video (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB), the synthetic depth-of-field effect includes applying a sixth amount of blur that is greater than the fifth amount of blur to a second portion (e.g., an area of the scene and/or an object, an element, a subject in the scene) of the third frame of the plurality of frames (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB). In some embodiments, the second portion of the third frame of the video is different from the first portion of the third frame of the video. In some embodiments, as a part of applying, to the plurality of frames of the video, the synthetic depth-of-field effect, the computer system displays the third frame of the video that includes the first portion (e.g., an area of the scene and/or an object, an element, a subject in the scene) that is displayed with the fifth amount (e.g., a non-zero amount) of blur and a second portion (e.g., an area of the scene and/or an object, an element, a subject in the scene) that is displayed with the sixth amount (e.g., a non-zero amount). Displaying different amounts of blur to different portions of a frame allows the user with feedback concerning how the synthetic depth-of-field effect is being applied to the frame. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, applying, to the plurality of frames of the video (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB), the synthetic depth-of-field effect includes blurring a portion of a fourth frame (e.g., first frame, second frame, third frame, and/or another frame of the video; a frame that includes the first subject and/or the second subject) of the plurality of frames (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB). In some embodiments, the portion of the fourth frame does not include a subject (e.g., first subject, second subject) (e.g., a representation of a subject) that is in the field-of-view of the one or more cameras (e.g., as described above in relation to FIG. **6**AB). In some embodiments, as a part of applying, to the plurality of frames of the video, the synthetic depth-of-field effect, the computer system displays a frame (e.g., first frame, second frame, third frame, and/or another frame of the video) of the video that includes a portion of the video that does not include a subject, where the portion of the video that does not include a subject is blurred. Blurring a portion of the frame that does not include a subject allows the user with feedback concerning how the synthetic depth-of-field effect is being applied to the frame. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, applying, to the plurality of frames of the video (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB), the synthetic depth-of-field effect includes blurring a foreground of a fifth frame of the plurality of frames relative to the first subject (e.g., portion of scene shown in frame that is closet/nearest in the field-of-view to the one or more cameras and/or in front of the main subject(s) (e.g., the first subject) and/or object(s) in the field-of-view of the one or more cameras) and a background (e.g., portion of scene shown in frame that is furthest in the field-of-view to the one or more cameras and/or behind the main subject(s) (e.g., the first subject) and/or object(s) in the field-of-view of the one or more cameras) of the fifth frame relative to the subject (e.g., first frame, second frame, third frame, fourth frame, and/or another frame of the video; a frame that includes the first subject) (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB). In some embodiments, the foreground is blurred differently than the background. Blurring the background and the foreground of the frame allows the user with feedback concerning how the synthetic depth-of-field effect is being applied to the frame. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the video includes a second plurality of frames (e.g., as indicated by live preview **630** of FIGS. **6**C-**6**AB) (e.g., that are different from the plurality of frames (e.g., a first plurality of frames)) that are captured over a second capture duration. In some embodiments, the second plurality of frames represent the first subject (e.g., **632**, **634**, **638**) in the field-of-view of the one or more cameras and a third subject (e.g., **632**, **634**, **638**) (e.g., the second subject or another subject that is different from the first subject and the second subject) (or an object) in the field-of-view of the one or more cameras. In some embodiments, the second plurality of frames are captured and/or displayed after the first plurality of frames. In some embodiments, the second capture duration is different from the first capture duration. In some embodiments, the plurality of frames represent the first subject, the second subject, and the third subject. In some embodiments, the second subject is the same subject as the third subject. In some embodiments, the third subject is different from the first subject. In some embodiments, in the second plurality of frames, the first subject and the third subject are moving relative to the field-of-view of the one or more cameras over the first capture duration. In some embodiments, while capturing the video over the first capture duration (e.g., and when (e.g., after/while) applying, to the plurality of frames of the video (e.g., a first plurality of frames of the video), that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject in the plurality of frames of the video), the computer system (**600**) detects an indication (e.g., as described above in relation to FIGS. **6**D-**6**G, FIGS. **6**H-**6**K, inputs **650***u*, **650***z*, and/or **650***z*) (e.g., a user input selecting the third subject) that the third subject should be emphasized in the second plurality of frames relative to the first subject (e.g., **632**, **634**, **638**) in the second plurality of frames (e.g., a user input selecting the third subject (e.g., a tap on the third subject or an affordance corresponding to the third subject); a system-generated indication). In some embodiments, in response to detecting the indication (e.g., as described above in relation to FIGS. **6**D-**6**G, FIGS. **6**H-**6**K, inputs **650***u*, **650***z*, and/or **650***z*), the computer system applies, to the second plurality of frames of the video (e.g., as indicated by live preview **630**), a second synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the third subject (e.g., **632**, **634**, **638**) in the second plurality of frames of the video relative to the first subject in the second plurality of frames of the video. In some embodiments, the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the third subject in the plurality of frames of the video relative to the first subject in the plurality of frames of the video changes over time as the third subject moves within the field-of-view of the one or more cameras. Applying, to the second plurality of frames of the video, a second synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the third subject in the second plurality of frames of the video relative to the first subject in the second plurality of frames of the video in response to detecting the indication allows the system/user to control how a synthetic depth-of-field effect is applied to a video when prescribed conditions are met. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the computer system automatically (e.g., without intervening user input and/or a user gesture, not in response to detecting an input/gesture (e.g., an input/gesture corresponding to a request to emphasize the third subject relative to the first subject (e.g., for example as described below in relation to method **800**) via the one or more input devices)) detects (e.g., generates) the indication when the third subject in the second plurality of frames satisfies a set of automatic selection criteria (e.g., as described in relation to FIGS. **6**D-**6**G, FIGS. **6**H-**6**K). In some embodiments, the set of automatic selection criteria is based on properties of the scene detected by the one or more cameras rather than being based on an input/gesture detected by the device via one or more input devices (e.g., an input/gesture corresponding to a request to emphasize the third subject relative to the first subject (e.g., for example as described below in relation to method **800**) via the one or more input devices)). Applying, to the second plurality of frames of the video, the second synthetic depth-of-field effect automatically when prescribed condition are met allows the system to control how a synthetic depth-of-field effect is applied to a video without user input. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the set of automatic selection criteria includes a criterion that is satisfied based on a motion of the third subject (e.g., **632**, **634**, **638**) (e.g., or any other respective subject) in the field-of-view of the one or more cameras (e.g., as described above in relation to FIGS. **6**H-**6**K) (e.g., when the motion (e.g., movement (e.g., speed, translation) of a respective subject (e.g., third subject) in the field-of-view of the one or more cameras is greater than the motion of other subjects (e.g., first subject) in the field-of-view of the one or more cameras). In some embodiments, the motion of the third subject is based on the prominence of the motion of the third subject (e.g., prominence of the motion (e.g., motion compared to a motion threshold (e.g., a non-zero threshold)) (e.g., the absolute (e.g., actual motion) of the third subject and/or the motion of the third subject as compared to the motion of other subjects in the field-of-view of the one or more cameras). Applying, to the second plurality of frames of the video, the second synthetic depth-of-field effect automatically based on motion of a subject allows the system to control how a synthetic depth-of-field effect is applied to a video, without user input, based on the motion of a subject. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the set of automatic selection criteria includes a criterion that is satisfied when (e.g., in accordance with) a determination is made that a face of the third subject (e.g., **632**, **634**, **638**) (e.g., or any other respective subject) is detected in the field-of-view of the one or more cameras (e.g., as described above in relation to FIGS. **6**D-**6**G, FIGS. **6**H-**6**K, FIGS. **6**O-**6**Q, FIGS. **6**U-**6**V). In some embodiments, the determination is made that the face of a respective subject is detected using a facial recognition algorithm. In some embodiments, the set of automatic selection criterion includes a criterion that is satisfied when a determination is made that a face of the third subject is detected in the field-of-view of the one or more cameras for a predetermined period of time (e.g., 0.1-5 seconds) and a face of the first subject is not detected in the field-of-view of the one or more cameras for another predetermined period of time (e.g., 0.1-5 seconds). In some embodiments, a determination that a face of the third subject is detected in the field-of-view of the one or more cameras is based on the prominence of the face (e.g., the absolute prominence (e.g., size, visibility (e.g., clearness, less obscured)) of the face and/or the prominence of the face relative to other faces in the field-of-view of the one or more cameras). Applying, to the second plurality of frames of the video, the second synthetic depth-of-field effect automatically based on face detection allows the system to control how a synthetic depth-of-field effect is applied to a video, without user input, based on detection of a subject's face. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the set of automatic selection criteria includes a criterion that is satisfied based on audio corresponding to (e.g., associated with, coming from, detected to be coming from) the third subject (e.g., **632**, **634**, **638**) (e.g., as described above in relation to FIGS. **6**D-**6**G, FIGS. **6**H-**6**K) (e.g., or any other respective subject) (e.g., when the audio (e.g., movement (e.g., speed, translation) of a respective subject (e.g., third subject) in the field-of-view of the one or more cameras is greater than the audio of other subjects (e.g., first subject) in the field-of-view of the one or more cameras). In Some Embodiments, the criterion is satisfied based on audio corresponding the third subject being above an audio threshold (e.g., a non-zero threshold) (e.g., an absolute/actual prominence (e.g., audio level) of the audio of the third subject and/or audio of third subject relative to audio of other subjects (e.g., in the field-of-view of the one or more cameras)). Applying, to the second plurality of frames of the video, the second synthetic depth-of-field effect automatically based on audio corresponding to the subject allows the system to control how a synthetic depth-of-field effect is applied to a video, without user input, based on the subject's audio. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the set of automatic selection criteria include a criterion that is satisfied based on a distance between the third subject (e.g., **632**, **634**, **638**) (e.g., or any other respective subject) in one or more of the second plurality of the frames and the one or more cameras (e.g., as described above in relation to FIGS. **6**D-**6**G, FIGS. **6**H-**6**K) (e.g., a viewpoint (e.g., a position a frame of the video that corresponds to or is the position of the one or more cameras that captured the visual information of the frame) of the one or more cameras). In some embodiments, the set of automatic selection criterion include a criterion that is satisfied when a respective subject (e.g., third subject (is closer to the one or more cameras than another subject (e.g., first subject) in the second plurality of frames (and/or closer for a more than a predetermined period of time (e.g., 0.1-5 seconds))). In some embodiments, the criterion that is satisfied based on a distance between the third subject in one or more of the second plurality of the frames and the one or more cameras is satisfied based on the prominence (e.g., measure of distance) of the distance of the third subject being above a distance threshold (e.g., a non-zero threshold) (e.g., an absolute/actual distance) of the audio of the third subject and/or the distance between third subject and the one or more cameras relative to one or more distances of other subjects (e.g., in the field-of-view of the one or more cameras)) between the one or more cameras. Applying, to the second plurality of frames of the video, the second synthetic depth-of-field effect automatically based on distance between the subject and a camera allows the system to control how a synthetic depth-of-field effect is applied to a video, without user input, based on the distance between the subject and a camera. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the set of automatic selection criteria include a criterion that is satisfied based on a gaze (e.g., a detected gaze) of the third subject (e.g., **632**, **634**, **638**) (e.g., or any other respective subject) (e.g., as described above in relation to FIGS. **6**D-**6**G). In some embodiments, the set of automatic selection criteria include a criterion that is satisfied when it is determined that the third subject is looking at the one or more cameras that captured the third subject (e.g., in the second plurality of frames). In some embodiments, the set of automatic selection criteria include a criterion that is not satisfied when it is determined that the third subject is determined to be looking away from the one or more cameras and/or looking away from the one or more cameras more than another subject is looking away from the one or more cameras. In some embodiments, the criterion that is satisfied based on the gaze of the third subject is determined based on absolute gaze of the third subject and/or the gaze of the third subject relative to one or more other subjects in the field-of-view of the one or more cameras (e.g., when the third subject is determined to be looking more towards the representation of the field-of-view of the one or more cameras than another subject in the representation of the field-of-view of the one or more cameras). Applying, to the second plurality of frames of the video, the second synthetic depth-of-field effect based on the detected gaze of the subject allows the system to control how a synthetic depth-of-field effect is applied to a video, without user input, based on the detected gaze of the subject. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the set of automatic selection criteria include a criterion that is satisfied based on a position of an appendage (e.g., hand, feet, fingers, and/or toes) of the third subject (e.g., as discussed above in relation to FIGS. **6**A-**6**AC and below in relation to FIG. **12**). Applying, to the second plurality of frames of the video, the second synthetic depth-of-field effect based on a position of an appendage of the subject allows the system to control how a synthetic depth-of-field effect is applied to a video, without user input, based on a position of an appendage, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, the set of automatic selection criteria include a criterion that is satisfied based on one or more changes in a feature (e.g., a feature of or associated with a user) detected in the captured video (e.g., one or more features selected from the group consisting of a face, a gaze, audio, distance, and/or position of an appendage) (e.g., over a predetermined period of time and/or above/below some non-zero threshold level of change over a predetermined period of time) (e.g., as discussed above in relation to FIGS. **6**A-**6**AC and below in relation to FIG. **12**). Applying, to the second plurality of frames of the video, the second synthetic depth-of-field effect based on one or more changes in a feature allows the system to control how a synthetic depth-of-field effect is applied to a video, without user input, based on one or more changes in a feature. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while capturing the video over the first capture duration, the computer system (e.g., **600**) detects, via the one or more input devices, a first gesture (e.g., **650***o*, **650***u*, **650***z*). In some embodiments, in response to detecting the first gesture, the computer system modifies the set of automatic selection criteria (e.g., as described above in relation to FIGS. **6**O-**6**Q, FIGS. **6**U-**6**V). In some embodiments, the set of automatic selection criteria includes a first set of automatic selection criteria before the computer system detects an indication that a respective subject should be emphasized by detecting a first gesture (e.g., a tap gesture, a press-and-hold gesture, a swipe gesture) (e.g., as further described in relation to method **800** and **900** and FIGS. **6**O-**6**Y) via the one or more input devices. In some embodiments, in response to detecting the first gesture, the computer system modifies the set of automatic selection criteria to include a second set of automatic selection criteria that is different from the first set of automatic selection criteria. In some embodiments, the modified set of automatic selection criteria does not include the first set of automatic selection criteria (and/or one or more criteria in the first set of automatic selection criteria). In some embodiments, when the modified set of automatic selection criteria is used to detect an indication that a respective subject (or object) should be emphasized, the computer system is less likely to change (or the number of changes are reduced) the synthetic depth-of-field effect to emphasize another subject (e.g., a different subject than the subject being emphasized) than when the unmodified set of automatic selection criteria is being used. Automatically modifying the set of automatic selection criteria when a gesture is received allows the computer system to switch the set of automatic selection criteria that used to automatically switch between which subjects are being emphasized and/or automatically change the synthetic depth-of-field effect that is applied based on the prescribed conditions. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the computer system (e.g., **600**) detects the indication (e.g., as described above in relation to FIGS. **6**O-**6**Q, FIGS. **6**U-**6**V, input(s) **650***o*, **650***u*, and/or **650***z*) when a second gesture (e.g., a tap gesture, a press-and-hold gesture, a swipe gesture, and/or etc.) (e.g., as further described in relation to method **800**) (e.g., a gesture directed to the third subject) is detected via the one or more input devices. In some embodiments, the computer system detects the indication when the second gesture is detected irrespective of the third subject (e.g., or any other respective subject) satisfying the set of automatic selection criteria. Applying, to the second plurality of frames of the video, a second synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the third subject in the second plurality of frames of the video relative to the first subject in the second plurality of frames of the video in response to detecting the second gesture provides the user with more control of the system by helping the user change the synthetic depth-of-field effect to alter the visual information by providing a type of input. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, in response to detecting the indication and while capturing the video, the computer system (e.g., **600**) displays a first animation (e.g., as described above in relation to live preview **630** of FIGS. **6**C-**6**AB) (e.g., that is displayed over a period of time (e.g., 1-5 seconds)) that includes a first transition (e.g., as described above in relation to FIGS. **6**C-**6**AB) (e.g., a fading (e.g., gradual fading) transition, a cross-fade transition) from display of one or more representations (e.g., live preview **630**) of the plurality of frames that have the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject applied to display of one or more representations (e.g., live preview **630**) of the second plurality of frames that have the second synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the third subject (e.g., **632**, **634**, **638**) in the second plurality of frames of the video relative to the first subject in the second plurality of frames of the video applied e.g., as described above in relation to FIGS. **6**C-**6**AB). Displaying a first animation that includes a first transition between displaying representation(s) that have one synthetic depth-of-field effect applied to representation(s) that have another synthetic depth-of-field effect applied provides the user with feedback to understand that the synthetic depth-of-field effect is changing. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while playing back the video at a time after capture of the video ended, the computer system displays a second animation (e.g., as described above in relation to previously captured media representation **640** of FIGS. **6**C-**6**AB) (e.g., that has a smooth transition) that corresponds to the first animation (e.g., that has an abrupt transition) (e.g., as described above in relation to live preview **630** of FIGS. **6**C-**6**AB). In some embodiments, the second animation (e.g., as described above in relation to previously captured media representation **640** of FIGS. **6**C-**6**AB) starts in a playback of the video at a time (e.g., **646**) that corresponds to a point in time in the video that occurred before the point in time in the video at which the indication (e.g., as described above in relation to FIGS. **6**D-**6**G, FIGS. **6**H-**6**K, **650***o*, **650***u*, **650***z*) was detected. In some embodiments, displaying the second animation offers a benefit over traditional cameras, which do not allow you to change the focus at a particular point (e.g., after the video is taken) (e.g., cannot go back in time to change focus point while capturing video). In some embodiments, the first transition has a first transition duration. In some embodiments, after capturing the video, via the one or more input devices, the computer system detects one or more gestures (e.g., one or more tap gestures, swipe gestures, and/or press-and-hold gestures) to initiate playback of the video. In some embodiments, in response to detecting the one or more gestures to initiate playback of the video, the computer system initiates playback of the video. In some embodiments, while playing back the video, the computer system displays a second animation that includes a second transition (e.g., a fading (e.g., gradual fading) transition, a cross-fade transition) from the display of one or more representations of the plurality of frames that have the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject applied to the display of one or more representations of the second plurality of frames that have the second synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the third subject in the second plurality of frames of the video relative to the first subject in the second plurality of frames of the video applied. In some embodiments, the second transition has a second transition duration that is different from the first transition duration.

In some embodiments, the second synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the third subject in the second plurality of frames of the video relative to the first subject in the second plurality of frames of the video is a synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize a selected focal plane in the video, and wherein a transition characteristic (e.g., a speed of transition, acceleration curve of the transition, and/or a duration of transition) for displaying the first animation (e.g., and/or the second animation) is based on a difference (e.g., distance) between the selected focal plane in the video and a previous focal plane in the video (e.g., the focal plane in the video that was emphasized before the indication was detected) (e.g., as discussed above in relation to FIGS. **6**A-**6**AC and FIGS. **6**BI-**6**BJ). Displaying the first animation where a transition characteristic for displaying the first animation is based on a difference between the selected focal plane in the video and a previous focal plane in the video provides visual feedback that allows a user to ascertain the magnitude of distance between the focal planes, which provides improved visual feedback.

In some embodiments, in accordance with a determination that a distance between the selected focal plane and the previous focal plane is a first distance, a speed of the animation is a first speed (e.g., as discussed above in relation to FIGS. **6**A-**6**AC and FIGS. **6**BI-**6**BJ). In some embodiments, in accordance with a determination that a distance between the selected focal plane and the previous focal plane is a second distance that is shorter than the first distance, the speed of the animation is a second speed that is faster than the first speed (e.g., as discussed above in relation to FIGS. **6**A-**6**AC and FIGS. **6**BI-**6**BJ). Displaying the first animation where a speed for displaying the first animation is based on a difference between the selected focal plane in the video and a previous focal plane in the video provides visual feedback that allows a user to ascertain the magnitude of distance between the focal planes without reducing the abruptness of a transition that can cause visual distractions, which provides improved visual feedback.

In some embodiments, applying the synthetic depth-of-field effect includes maintaining focus on a location (e.g., at a depth or focal plane in the video) that corresponds to (e.g., the location of the first subject, the last known location of the first subject or a projected location of the first subject) the first subject (e.g., **632**) (e.g., maintaining the application of the synthetic depth-of-field effect) while the first subject (e.g., **632**) is at least partially obscured (e.g., by **642**) (e.g., as described above in relation to FIGS. **6**L-**6**M) (e.g., obscured behind another object, where a portion (e.g., or the entirety) of the first subject is not visible and/or behind another object) (e.g., in at least one frame of the plurality of frames). In some embodiments, as a part of applying the synthetic depth-of-field effect, the computer system maintains focus on a location that corresponds to the first subject (e.g., maintaining the application of the synthetic depth-of-field effect) while the first subject is obscured for a first period of time and ceases to maintain focus on a location that corresponds to the first subject (e.g., maintaining the application of the synthetic depth-of-field effect) while the first subject is obscured for a second predetermined period of time that is longer than the first predetermined period of time.

In some embodiments, the computer system displays a first user interface object (e.g., **672***a*-**672***c*) indicating that the first subject (e.g., **632**, **634**, **638**) is being emphasized while applying the synthetic depth-of-field effect (e.g., using one or more techniques as described below in relation to methods **800** and **900**). Displaying the first user interface object indicating that the first subject is being emphasized provides the user with feedback concerning a subject that is emphasized by a synthetic depth-of-field effect relative to other subject(s) in the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the first user interface object (e.g., **672***a*-**672***c*) indicating that the first subject is being emphasized (e.g., in a live preview, a representation of the current (e.g., live) field-of-view of the one or more cameras) is displayed while the video is being captured (e.g., **672***a*-**672***c* in live preview **630**). In some embodiments, the first user interface object indicating that the first subject is being displayed can be displayed while the video is being captured and while capture of the video has ended (e.g., where the video is a previously captured video). In some embodiments, in other words, the same user interface object is displayed, irrespective of whether a representation of the video is being captured is displayed and/or a representation of a previously captured video is displayed. Displaying the first user interface object indicating that the first subject is being emphasized while the video is being captured provides the user with feedback concerning a subject that is emphasized by a synthetic depth-of-field effect relative to other subject(s) in the video that is being captured. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the first user interface object (e.g., **672***a*-**672***c*) indicating that the first subject is being emphasized (e.g., in a representation of previously captured media) is displayed after capture of the video has ended (e.g., **672***a*-**672***c* in media representation **660**). Displaying the first user interface object indicating that the first subject is being emphasized while the video has been provides the user with feedback concerning a subject that is emphasized by a synthetic depth-of-field effect relative to other subject(s) in the video that has been captured. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the computer system displays a second user interface object (e.g., **674***a*-**674***c*) corresponding to the second subject (e.g., **632**, **634**, **638**) while applying the synthetic depth-of-field effect (e.g., indicating that the second subject is not being emphasized). In some embodiments, the second user interface object (e.g., **674***a*-**674***c*) is different in appearance (e.g., different in color, shape, etc.) from a user interface object (e.g., **672***a*-**672***c*) (e.g., the first user interface object) that indicates a first subject (e.g., **632**, **634**, **638**) to which the synthetic depth-of-field effect is being applied. In some embodiments, the first subject (e.g., **632**, **634**, **638**) is a person (e.g., **632**, **634**), an animal (e.g., **638**), or an object (e.g., as described above in relation to FIGS. **6**B-**6**C). Displaying the first user interface object indicating that the first subject is being emphasized that is different from as the second user interface object corresponding to the second subject provides visual feedback for the user to distinguish between which subject(s) are being emphasized and which subject(s) are not being emphasized by a synthetic depth-of-field effect. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, before the computer system (e.g., **600**) detects the request (e.g., **650***b***2**) to capture the video and while the computer system (e.g., **600**) is configured to operate in a first capture mode (e.g., as indicated by **620***c*) (e.g., a still or video capture mode that is not the cinematic video capture mode), the computer system (e.g., **600**) detects a third gesture (e.g., a first gesture directed to the first representation) (e.g., a swipe gesture) (and/or, in some embodiments, a non-swipe gesture (e.g., tap gesture, a press-and-hold gesture)). In some embodiments, before the computer system (e.g., **600**) detects the request (e.g., **650***b***2**) to capture the video and in response to detecting the third gesture (e.g., **650***a***1**, **650***a***2**), the computer system (e.g., **600**) is configured to operate in a cinematic video capture mode (e.g., **620***e*) (e.g., as indicated by FIG. **6**B) (e.g., as described above in relation to methods **800** (e.g., **802**) and **900** (e.g., **902**, **904**), as described in relation to the camera user interface of FIGS. **6**A-**6**C, the media editing user interface of FIGS. **6**D-**6**AQ) that is different from the first capture mode (e.g., **620***c*). In some embodiments, while the computer system is in the cinematic video mode, the computer system is configured to apply a synthetic depth-of-field effect to alter visual information to emphasize a subject in one or more frames of media. In some embodiments, the computer system displays a camera control region that includes a plurality of selectable user interface objects for camera capture modes. In some embodiments, each camera mode (e.g., **620**) (e.g., video (e.g., **620***d*), photo (e.g., **620***c*), portrait (e.g., **620***b*), slow-motion (e.g., **620***f*), panoramic modes (e.g., **620***a*), time lapse (e.g., **620***g*)) has a plurality of settings (e.g., for a portrait capture mode: a studio lighting setting, a contour lighting setting, a stage lighting setting) with multiple values (e.g., levels of light for each setting) of the mode (e.g., portrait capture mode) that a camera (e.g., a camera sensor) is operating in to capture media (including post-processing performed automatically after capture). In this way, for example, capture modes are different from modes which do not affect how the camera operates when capturing media or do not include a plurality of settings (e.g., a flash mode having one setting with multiple values (e.g., inactive, active, auto). In some embodiments, capture modes allow user to capture different types of media (e.g., photos or video) and the settings for each mode can be optimized to capture a particular type of media corresponding to a particular mode (e.g., via post processing) that has specified properties (e.g., shape (e.g., square, rectangle), speed (e.g., slow motion, time elapse), audio, video). For example, when the computer system is configured to operate in a still photo capture mode, the one or more cameras of the computer system, when activated, captures media of a first type (e.g., rectangular photos) with particular settings (e.g., flash setting, one or more filter settings); when the computer system is configured to operate in a square capture mode, the one or more cameras of the computer system, when activated, captures media of a second type (e.g., square photos) with particular settings (e.g., flash setting and one or more filters); when the computer system is configured to operate in a slow motion capture mode, the one or more cameras of the computer system, when activated, captures media that media of a third type (e.g., slow motion videos) with particular settings (e.g., flash setting, frames per second capture speed); when the computer system is configured to operate in a portrait capture mode, the one or more cameras of the computer system captures media of a fifth type (e.g., portrait photos (e.g., photos with blurred backgrounds)) with particular settings (e.g., amount of a particular type of light (e.g., stage light, studio light, contour light), f-stop, blur); when the computer system is configured to operate in a panoramic capture mode, the one or more cameras of the computer system captures media of a fourth type (e.g., panoramic photos (e.g., wide photos) with particular settings (e.g., zoom, amount of field to view to capture with movement). In some embodiments, when switching between capture modes, the display of the representation of the field-of-view changes to correspond to the type of media that will be captured by the capture mode (e.g., the representation is rectangular while the computer system is operating in a still photo capture mode and the representation is square while the computer system is operating in a square capture mode)). Configuring the computer system to operate in a cinematic video capture mode that is different from the first capture mode in response to detecting a third gesture provides the user with more control by allowing the user to change between camera modes. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while the computer system (e.g., **600**) is configured to operate in the first capture mode (e.g., **620***c*), a first representation (e.g., live preview **630** of FIG. **6**A) of the field-of-view of the one or more cameras is displayed. In some embodiments, while the computer system (e.g., **600**) is configured to operate in the cinematic video capture mode (e.g., **620***e*), a second representation (e.g., live preview **630** of FIG. **6**B) of the field-of-view of the one or more cameras is displayed. In some embodiments, the first representation has less blur (e.g., has less than an amount of blur) than the second representation. In some embodiments, the first representation does not have a synthetic depth-of-field effect application to the visual information captured by the one or more cameras and the second representation has the synthetic depth-of-field application to the visual information captured by the one or more cameras. In some embodiments, a subject is not emphasized in the first representation while a subject is emphasized in the second representation. Displaying different representations of the field-of-view while the computer is in different capture modes provides the user with visual feedback concerning how the settings of each respective mode will alter the appearance of captured media. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while the computer system (e.g., **600**) is configured to operate in the cinematic video capture mode (e.g., **620***e*), the computer system (e.g., **600**) detects a fourth gesture (e.g., **650***ar*) (e.g., a swipe gesture) (and/or in some embodiments, a non-swipe gesture (e.g., a tap gesture, a press-and-hold gesture)) that is in a different direction that the third gesture (e.g., **650***ar*) (e.g., **650***a***1**). In some embodiments, in response to detecting the fourth gesture, the computer system is configured to operate in a still photo capture mode (e.g., as described above in relation to FIGS. **6**A-**6**B) (e.g., that is different from the second mode). In some embodiments, while the computer system is configured to operate in a still photo mode, the one or more cameras of the computer system, when activated (e.g., via detecting a request to capture media), captures media of a first type (e.g., rectangular still photos) with particular settings (e.g., flash setting, one or more filter settings). In some embodiments, while the computer system is configured to operate in a still photo mode, the computer system is not configured to apply (e.g., automatically apply) a synthetic depth-of-field effect to alter visual information to emphasize a subject in one or more frames of media. In some embodiments, in response to detecting the fourth gesture, a third representation is displayed. In some embodiments, the third representation does not have a synthetic depth-of-field effect application to the visual information captured by the one or more cameras and the second representation has the synthetic depth-of-field application to the visual information captured by the one or more cameras. In some embodiments, a subject is not emphasized in the third representation while a subject is emphasized in the second representation. Configuring the computer system to operate in a cinematic video capture mode that is different from the first capture mode in response to detecting a fourth gesture that is different from the third gesture provides the user with more control by allowing the user to change between camera modes by providing user inputs that have different directions. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, before detecting the request (e.g., **650***b***2**) to capture the video and while the computer system (e.g., **600**) is configured to operate in a second capture mode (e.g., **650***e*), the computer system detects a fifth gesture (e.g., **650***ar*) (e.g., a gesture directed to the first representation, a gesture that is in the same direction as the second gesture) (e.g., a swipe gesture) (and/or in some embodiments, a non-swipe gesture (e.g., a tap gesture, a press-and-hold gesture)); and in response to detecting the fifth gesture (e.g., **650***ar*), configuring the computer system to operate in a portrait capture mode (e.g., **620***b*) (e.g., that is different from the still photo capture mode, the cinematic video capture mode). In some embodiments, while the computer system is in the cinematic video mode, the computer system is configured to apply a synthetic depth-of-field effect to alter visual information to emphasize a subject in one or more frames of media. In some embodiments, in response to detecting the second fifth, a fourth representation is displayed. In some embodiments, the fourth representation does not have a synthetic depth-of-field effect application to the visual information captured by the one or more cameras and the second representation has the synthetic depth-of-field application to the visual information captured by the one or more cameras. In some embodiments, a subject is not emphasized in the fourth representation while a subject is emphasized in the second representation. In some embodiments, when the electronic device is configured to operate in a portrait mode, the one or more cameras of the computer system captures media of a fifth type (e.g., portrait photos (e.g., photos with blurred backgrounds)) with particular settings (e.g., amount of a particular type of light (e.g., stage light, studio light, contour light), f-stop, blur). Configuring the computer system to operate in a cinematic video capture mode that is different from the first capture mode in response to detecting the fifth gesture provides the user with more control by allowing the user to change between camera modes. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, applying, to the plurality of frames of the video (e.g., media representation **660**), the synthetic depth-of-field effect (e.g., **662**, **682**, **650***ae*, and/or **650***af***2**) includes adjusting (e.g., changing) a magnitude (e.g., a magnitude of a simulated aperture or a magnitude of a simulated and/or synthetic depth-of-field) of the synthetic depth-of-field effect that is applied to the video. In some embodiments, the computer system is in communication with a display generation component. In some embodiments, after (e.g., and/or while) adjusting the magnitude of the synthetic depth-of-field effect that is applied to the video, the computer system displays a representation (e.g., **602***e*) (e.g., numbers, words, and/or symbols) (e.g., a distance between the computer system and/or one or more cameras of the computer system to a plane that is in the field-of-view of the one or more cameras) of the magnitude (e.g., amount of blur) of the synthetic depth-of-field effect that is applied to the video. In some embodiments, in accordance with a determination the magnitude of the synthetic depth-of-field effect that is applied to the video is a default magnitude and/or in accordance with a determination that one or more default settings are set, the computer system forgoes displaying the representation of the magnitude of the synthetic depth-of-field effect that is applied to the video and/or displays a representation of the magnitude of the synthetic depth-of-field effect that is applied to the video with a different visual appearance than the representation of the magnitude of the synthetic depth-of-field effect that is applied to the video in accordance with a determination that the magnitude of the synthetic depth-of-field effect that is applied to the video is not the default magnitude. Displaying a representation of the magnitude of the synthetic depth-of-field effect that is applied to the video provides visual feedback that informs the user about the magnitude to which the synthetic depth-of-field that has been adjusted, which provides improved visual feedback.

In some embodiments, after applying the synthetic depth-of-field effect to the plurality of frames of the video, the computer system (e.g., **600**), detects a second request (e.g., **650***ai*, **650***a***1**) to apply a synthetic depth-of-field effect to a second plurality of frames (e.g., media representation **660**) of the video that have been captured. In some embodiments, in response to detecting the second request (e.g., **650***ai*, **650***a***1**) and in accordance with a determination that the second request (e.g., **650***ai*, **650***a***1**) was detected based on a first type of gesture (e.g., **650***ai*) (e.g., a single-tap gesture) (and/or, in some embodiments, a non-tap gesture (e.g., a swipe gesture, a press-and-hold gesture)) being detected, the computer system (e.g., **600**) applies the synthetic depth-of-field effect to the second plurality of frames of the video that have been captured with a first type of tracking (e.g., as described above in relation to FIGS. **6**AI-**6**AK). In some embodiments, in response to detecting the second request (e.g., **650***ai*, **650***a***1**) and in accordance with a determination that the second request (e.g., **650***ai*, **650***a***1**) was detected based on a second type of gesture (e.g., **650***a***1**) (e.g., a multi-tap gesture (e.g., double-tap gesture)) (and/or, in some embodiments, a non-tap gesture (e.g., a swipe gesture, a press-and-hold gesture)) being detected, applies the synthetic depth-of-field effect to the second plurality of frames of the video that have been captured with a second type of tracking (e.g., as described above in relation to FIGS.

6AL-6AN). In some embodiments, the second type of tracking (e.g., as described above in relation to FIGS. 6AL-6AN) is different from the first type of tracking (e.g., as described above in relation to FIGS. 6AI-6AK). In some embodiments, computer system **600** displays different visual indicators (e.g., **672***a*-**672***c* vs. **676** vs. **678***a*-**678***b*) to emphasize a portion of a frame is displayed for types of tracking (e.g., as described above in relation to FIGS. 6O-6Q, FIGS. 6U-6V, FIGS. 6Z-6AA, and FIGS. 6AI-6AM)

In some embodiments, in response to detecting the second request (e.g., **650***ai*, **650***a***1**, **650***z*) and in accordance with a determination that the second request was detected based on a third type of gesture (e.g., **650***z*) (e.g., a press-and-hold gesture) (and/or, in some embodiments, a non-pressing gesture (e.g., a swipe gesture, a tap gesture)) being detected, the computer system (e.g., **600**) applies the synthetic depth-of-field effect to the second plurality of frames of the video that have been captured with a third type of tracking (e.g., as described above in relation to FIGS. 6Z-6AA). In some embodiments, the third type of tracking is different from the first type of tracking and the second type of tracking (e.g., different types of depth-of-field effects (e.g., a depth-of-field effect where a subject is in focus temporarily, a depth-of-field effect where a subject is in focus permanently, depth-of-field effect where a plane and/or area of the representation is in focus (e.g., as described above in relation to method **800**). In some embodiments, the first type of gesture, the second type of gesture, and the third type of gesture are different from each other (e.g., different types of gestures from each other). In some embodiments, the computer system displays different types of indicators for different types of tracking. Altering the visual information differently based on the type of gesture (e.g., first type of gesture, second type of gesture, third-type of gesture) that is received provides the user with more control of the system by helping the user change the synthetic depth-of-field effect to alter the visual information in a particular way by providing a particular type of input. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the second request (e.g., **650***ai*, **650***a***1**, **650***z*) is one of a single-tap gesture (e.g., **650***ai*), a multi-tap gesture (e.g., **650***a***1**) (e.g., a double-tap gesture), and a press-and-hold gesture (e.g., **650***z*).

In some embodiments, the second request (e.g., **650***ai*, **650***a***1**, **650***z*) is based on a gesture (e.g., **650***z*) (e.g., the third type of gesture) that is not directed to one or more subjects (e.g., the first subject, the second subject) in the plurality of frames. In some embodiments, the second request is based on a gesture that is directed to the one or more subjects in the plurality of frames. In some embodiments, in response detecting a gesture that is not directed to the one or more subjects, the computer system does not apply the synthetic depth-of-field effect to the plurality of frames of the video that have been captured with a type of tracking that tracks a subject when the subject moves relative to the field-of-view of the one or more cameras (e.g., as discussed above in relation to FIGS. 6Y-6AB).

In some embodiments, method **800** includes operation regarding computer system **600** automatically applying a synthetic depth of field effect to the video (e.g., visual information to the video) (e.g., to one or more frames (e.g., a sequence of frames over a capture duration) of the video). The computer system automatically synthetic depth of field effect to the video reduces the number of inputs needed to perform a set of operations and provides the user with more control of the system by helping the user change the synthetic depth-of-field effect to alter the visual information for a sequence of frames in the video rather than reviewing and modifying individual frames to blur the background using one or more user inputs to apply a blur to each of the individual frames. Reducing the number of inputs to perform a set of operations and providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the first subject (e.g., **632**, **634**, and/or **638**) in the plurality of frames of the video is at a third distance from the one or more cameras. In some embodiments, the second subject (e.g., **632**, **634**, **638**) in the plurality of frames of the video is at a fourth distance from the one or more cameras that is closer to the one or more cameras than the third distance (e.g., as described above in relation to FIG. 6AG.

In some embodiments, as a part of capturing the video over the first capture duration" at a first time during the first capture duration, the computer system adjusts one or more settings of a first camera of the one or more cameras (e.g., length of the optical path between a lens and a sensor; aperture/effective aperture) to bring into focus a first focal plane that corresponds to the first subject (e.g., to bring the first subject within an acceptable are of focus); at a second time during the first capture duration and while the first camera is aligned to the first focal plane, the computer system detects a change in the distance between the first subject and the first camera; in response to detecting the change in the distance between the first subject and the first camera, the computer system adjusts the one or more settings of the first camera to bring into focus a second focal plane, different from the first focal plane, that corresponds to the first subject; after capturing the video over the first capture duration (and, in some embodiments, after applying, to the plurality of frames of the video, the synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video), the computer system detects an indication (e.g., **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, **688***h*, **688***i*, **688***j*, **688***k*, and/or **688***m*) (e.g., a user input selecting the second subject) (e.g., as described in relation to method **800**) that the second subject should be emphasized in the first plurality of frames relative to the first subject in the second plurality of frames, where the first plurality of frames corresponds to the second time; and in response to detecting the indication that the second subject should be emphasized in the first plurality of frames relative to the first subject in the second plurality of frames and while the second focal plane is not altered (e.g., applying the synthetic depth-of-field effect does not include adjusting one or more settings of the first camera; the underlying, unmodified video data still has the second focal plane in focus), the computer system applies, to the plurality of frames of the video, a respective synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames of the video relative to the first in the plurality of frames of the video. In some embodiments, while capturing the video over a first capture duration, the computer system tracks one or more respective subjects in the plurality of frames of the video by focusing on a set of focal planes (e.g., a first set of true focal planes) (e.g., one or more focal planes that were used to track the one or more respective subjects while capturing the video). In some embodiments, focusing on the set of focal planes causes the plurality of frames have a natural amount of blur. In some embodiments, the one or more focal planes that were used to track the one or more respective subjects while capturing the video were identified by a subject (and/or object) detection algorithm and/or by an autofocus algorithm (e.g., and/or setting) on the computer system. In some embodiments, by tracking one or more respective subjects in the plurality of frames of the video by focusing on a first set of focal plane, a first blur is applied to the captured video. In some embodiments, after capturing the video over the first capture duration (and, in some embodiments, after applying, to the plurality of frames of the video, the synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video), the computer system detects an indication (e.g., a user input selecting the second subject) (e.g., as described in relation to method **800**) that the second subject should be emphasized in the first plurality of frames relative to the first subject in the second plurality of frames. In some embodiments, in response to detecting the indication that the second subject should be emphasized in the first plurality of frames relative to the first subject in the second plurality of frames, the computer system applies, to the plurality of frames of the video, a respective synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames of the video relative to the first in the plurality of frames of the video, wherein, after applying the respective synthetic depth-of-field effect, the plurality of frames continue to include the natural amount of blur. In some embodiments, the synthetic depth-of-field effect changes over time as the second subject moves within the field-of-view of the one or more cameras.

In some embodiments, as a part of applying, to the plurality of frames (e.g., **1230**) of the video, the synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video, the computer system: identifies (e.g., using an image signal processor (e.g., a software algorithm and/or a hardware processor), in the plurality of frames of the video, one or more objects (e.g., **1232**) (e.g., subjects, animals, and/or inanimate objects (e.g., a sports ball) and/or a portion of one or more objects (e.g., **1232**) (e.g., face and/or head, torso, and/or a body) and one or more characteristics (e.g., **1234**) (e.g., object type, position, size, and/or orientation, a face pose (e.g., the roll of a detected face, a yaw of a detected face, and/or the pitch of the detected face), and/or human key points (e.g., a face size, face position, face orientation and/or hand size, hand position, hand orientation, and/or a normalized (x, y) position and confidence of each detected person's nose, and/or left/right eye, ear, shoulder, elbow, wrist, hip, knee, and/or ankle)) of the one or more objects using an object detection algorithm; provides the one or more identified objects and the one or more identified characteristics of the one or more identified objects to a neural network (e.g., **1224**) (e.g., an artificial neural network; a set of algorithms operating as a networked set of artificial neurons that process information); and obtains output (e.g., **1236**) from the neural network based the one or more identified objects and the one or more identified characteristics of the one or more identified objects. In some embodiments, the output from the neural network identifies the first subject (e.g., **632**, **634**, **628**, **638**, and/or **698**) from among the one or more objects for application of the synthetic depth-of-field effect. In some embodiments, the computer system applies to the plurality of frames of the video, the synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video based on the output from the neural network. In some embodiments, after providing the one or more identified objects and the one or more identified characteristics of the one or more identified objects to a neural network, the determination is made to applying, to the plurality of frames of the video, the synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video (e.g., based on output received from the neural network) and/or the synthetic depth-of-field effect (e.g., and/or the amount of the synthetic depth-of-field effect) is applied based on output received from the neural network.

In some embodiments, the neural network (e.g., **1224**) was trained using training data (e.g., **1220**) that includes user preference data (e.g., **1222**) that identifies which objects in videos (e.g., **1206**) in the set of captured videos a user would have selected for emphasis at a plurality of times in a set of captured videos. In some embodiments, the training data includes user preference data from multiple different users for the same video or for multiple individual videos. In some embodiments, the training data includes user preference data for multiple different times within a single video (e.g., selection of different objects to be emphasized at different times). In some embodiments, the training data includes data from a large number of videos (e.g., 50, 100, 1000, and/or 10,000 videos). In some embodiments, the training data identifies different objects to be emphasized at different points in time. In some embodiments, the neural network learns from the characteristics in one or more videos via the training to identify which characteristics of the video are likely to have caused the objects to be selected.

In some embodiments, after applying, to the plurality of frames of the video, the synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video and while the neural network (e.g., **1224**) continues to identify (e.g., via **1236**) the first subject from among the one or more objects for a respective application of a respective synthetic depth-of-field effect (and/or continues to identify the first subject as a designated point-of-interest (e.g., the subject that should emphasized)), the computer system detects (g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*, and/or one or more inputs described below in relation method **800**) a request to emphasize the second subject in the plurality of frames of the video. In some embodiments, in response to detecting the request (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*, and/or one or more inputs described below in relation method **800**) to emphasize a different subject in the plurality of frames of the video (e.g., and while the neural network continues to identify the first subject as a designated point-of-interest), the computer system applies (e.g., via **1238** as discussed above in relation to FIG. **12**), to the plurality of frames of the video, a different synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames of the video relative to the first subject in the plurality of frames of the video. In some embodiments, after applying the different synthetic depth-of-field effect, the synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video is saved as a default depth-of-field effect change. In some embodiments, after removing the different depth-of-field effect, the computer system, automatically (e.g., without intervening user input), reapplies, to the plurality of frames of the video, the synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames of the video relative to the second subject in the plurality of frames of the video.

Note that details of the processes described above with respect to method **700** (e.g., FIG. **7**) are also applicable in an analogous manner to the methods described herein. For example, methods **800**, **900**, **1100**, and/or **1300** optionally includes one or more of the characteristics of the various methods described above with reference to method **700**. For example, the method described below in method **900** can be used to display media in a media editing user interface after the media is captured using one or more techniques described in relation to method **700**.

For example, characteristics of method **700** could be combined with method **800** and/or method **900** to improve how visual media is altered. For brevity, these details are not repeated below.

FIG. **8** is a flow diagram illustrating an exemplary method for altering visual media using a computer system in accordance with some embodiments. Method **800** is performed at a computer system (e.g., **100**, **300**, **500**, **600**, a smartphone, a desktop computer, a laptop, and/or a tablet) that is in communication with one or more cameras (e.g., one or more cameras (e.g., dual cameras, triple camera, quad cameras, etc.) on the same side or different sides of the computer system (e.g., a front camera, a back camera)), a display generation component (e.g., a display controller, a touch-sensitive display system), and/or one or more input devices (e.g., a touch-sensitive surface). Some operations in method **800** are, optionally, combined, the orders of some operations are, optionally, changed, and some operations are, optionally, omitted.

As described below, method **800** provides an intuitive way for altering visual media. The method reduces the cognitive burden on a user for altering visual media, thereby creating a more efficient human-machine interface. For battery-operated computing devices, enabling a user to alter visual media faster and more efficiently conserves power and increases the time between battery charges.

The computer system (e.g., **600**) displays (**802**), via the display generation component, a user interface (e.g., a media capture user interface, a media viewer/editing user interface) (and, in some embodiments, the user interface is displayed using one or more techniques as described above/below in relation to methods **700** and **900**) that includes (e.g., concurrently displaying) a representation (e.g., **630**, **660**) (e.g., of a frame (an image)) of a video (e.g., video media) (e.g., video captured using one or more techniques as described above/below in relation to methods **700** and **900**) that includes a plurality of frames. The representation including a first subject (e.g., **632**, **634**, **638**) (e.g., subject identified by the computer system; an identified subject) and a second subject (e.g., **632**, **634**, **638**) (e.g., subject identified by the computer system; an identified subject).

The computer system (e.g., **600**) displays (**804**), via the display generation component, the user interface (e.g., a media capture user interface, a media viewer/editing user interface) (and, in some embodiments, the user interface is displayed using one or more techniques as described above/below in relation to methods **700** and **900**) that includes (e.g., concurrently displaying) a first user interface object (e.g., **672***a*-**672***c*) indicating that the first subject (e.g., **632**, **634**, **638**) is being emphasized by a (e.g., synthetic (e.g., computer-generated and/or computer-generated and applied after capture of a frame of the video)) synthetic depth-of-field effect that alters visual information captured by the one or more cameras to emphasize (and/or that emphasizes) (e.g., visually emphasize) the first subject (e.g., **632**, **634**, **638**) in the plurality of frames relative to the second subject (e.g., **632**, **634**, **638**) (e.g., in the plurality of frames) (that has been applied (e.g., by the computer system) to the representation of the video and/or the video) (e.g., using one or more techniques as described above/below in relation to methods **700** and **900**). In some embodiments, user interface does not include a user interface object indicating that the second subject is being emphasized by a depth-of-field effect before the gesture that corresponds to selection of the second subject in the representation of the video is received. In some embodiments, only one instance of the first user interface object is displayed in the user interface at any given time. In such embodiments, the first user interface object also indicates what subject(s) are not being emphasized by a depth-of-field effect by virtue of not being associated with those subject(s).

While displaying the user interface that includes the representation (e.g., **630**, **660**) of the video and the first user interface object (e.g., **672***a*-**672***c*, **678***a*-**678***b*), the computer system (e.g., **600**) detects (**806**), via the one or more input devices, a gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) (e.g., a single-tap gesture, a multiple-tap gesture (e.g., double-tap gesture), a press-and-hold gesture) that corresponds to selection of (e.g., directed to, on) the second subject (e.g., **632**, **634**, **638**) (e.g., a subject that is different from the first subject) in the representation (e.g., **630**, **660**) of the video.

In response to (**808**) detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**) in the representation (e.g., **630**, **660**) of the video, the computer system (e.g., **600**) changes (**810**) the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize (and/or that emphasizes) (e.g., visually emphasize) the second subject (e.g., **632**, **634**, **638**) in the plurality of frames relative to the first subject (e.g., **632**, **634**, **638**) (e.g., as described above in relation to FIGS. **6**B-**6**AO). Changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject in response to detecting a detecting the gesture that corresponds to selection of the second subject in the representation of the video provides the user with control over the system by allowing the user to control how a synthetic depth-of-field effect is applied to a video. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In response to (**808**) detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**) in the representation (e.g., **630**, **660**) of the video, the computer system (e.g., **600**) displays (**812**) a second user interface object (e.g., **672***a*-**672***c*, **678***a*-**678***b*) indicating that the second subject (e.g., **632**, **634**, **638**) is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize (and/or that emphasizes) (e.g., visually emphasize) the second subject (e.g., **632**, **634**, **638**) in the plurality of frames relative to the first subject (e.g., **632**, **634**, **638**) (e.g., in the plurality of frames). In some embodiments, in response to detecting the gesture directed to the second subject in the representation of the video, the computer system applies the synthetic depth-of-field effect (e.g., synthetic and/or computer-generated) that emphasizes the second subject in video relative to the first subject (e.g., people, animals, other subjects (e.g., other subjects with faces), objects) in the representation (e.g., one or more frames) and/or one or more subsequent representations (e.g., that are displayed after the representation) of the video. In some embodiments, the user interface object (e.g., first user interface object, second user interface object) is displayed around the body or a body part (e.g., head) of a respective subject. In some embodiments, the user interface object (e.g., first user interface object, second user interface object) is a shape (e.g., circle, square, cross) and/or bracket that is displayed around or on the user. In some embodiments, the color of the user interface object and/or shape of the user interface object (e.g., first user interface object, second user interface object) indicates whether or not a respective subject is being emphasized by the synthetic depth-of-field effect. In some embodiments, when the user interface object indicates that a respective subject is being emphasized by the (e.g., computer-generated) depth-of-field effect, the respective subject is less blurred than other subjects in the representation of the video. In some embodiments, when the user interface object indicates that the respective subject is not being emphasized by the (e.g., computer-generated) depth-of-field effect, the respective subject is more blurred than another subject in the representation of the video. Displaying the second user interface object indicating that the second subject is being emphasized in response to detecting a detecting the gesture that corresponds to selection of the second subject in the representation of the video provides the user with feedback concerning a subject that is emphasized by a synthetic depth-of-field effect relative to other subject(s) in the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the first user interface object (e.g., **672***a*-**672***c*, **678***a*-**678***b*) and the second user interface object (e.g., **672***a*-**672***c*, **678***a*-**678***b*) have a same visual appearance (e.g., a same color and/or a shape). Displaying the first user interface object indicating that the first subject is being emphasized with the same visual appearance as the second user interface object indicating that the second subject is being emphasized provides the user with consistent feedback concerning a subject that is emphasized by a synthetic depth-of-field effect relative to other subject(s) in the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, before detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject, the computer system (e.g., **600**) displays (e.g., concurrently with the first user interface object), via the display generation component (e.g., in the user interface, concurrently with the first user interface object), a third user interface object (e.g., **674***a*-**674***c*) (e.g., a box or outline associated with the second subject; an object having a different color and/or shape than that of the first user interface object). In some embodiments, the third use interface object is displayed at a location near or surrounding the second subject indicating that the second subject (e.g., **632**, **635**, **638**) is not being emphasized (e.g., by the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject and by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject) (e.g., a grey box (e.g., a grey subject detect box). In some embodiments, in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video, the computer system ceases to display the third user interface object and/or replaces display of the third user interface object with the display of the second user interface object. Displaying the third user interface indicating that the second subject is not being emphasized provides the user with feedback concerning a subject that is not being emphasized by a synthetic depth-of-field effect. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the first user interface object (e.g., **672***a*-**672***c*) has a different visual appearance from the third user interface object (e.g., **674***a*-**674***c*) (e.g., a color (e.g., not grey), a shape and/or another visual characteristic other than location of the user interface object in the timeframe). In some embodiments, the second user interface object has a visual appearance that is the same as the second visual appearance third user interface object. Displaying the first user interface object indicating that the first subject is being emphasized with a different visual appearance as the third user interface indicating that the second subject is not being emphasized provides visual feedback for the user to distinguish between which subject(s) are being emphasized and which subject(s) are not being emphasized by a synthetic depth-of-field effect. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the representation (e.g., **630**, **660**) of the video includes a third subject. In some embodiments, before detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**), the computer system (e.g., **600**) displays, via the display generation component (e.g., in the user interface, concurrently with the first user interface object and/or the third user interface object), a fourth user interface object (e.g., **674***a*-**674***c*) (e.g., the third use interface object) indicating that the second subject (e.g., **632**, **634**, **638**) is not being emphasized (e.g., by the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject and by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject) and (and/or concurrently with) a fifth user interface object (e.g., **674***a*-**674***c*) indicating that the third subject (e.g., **632**, **634**, **638**) is not being emphasized (e.g., as described above in relation to FIG. **6**AB) (e.g., by the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject and by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject). In some embodiments, in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video, the computer system continues to display the fifth user interface object and/or ceases to display the fourth user interface object. Displaying a fourth user interface object indicating that the second subject is not being emphasized and a fifth user interface object indicating that the third subject is not being emphasized provides the user with feedback concerning subjects that are not being emphasized by a synthetic depth-of-field effect and allows the user to identify which subjects are being tracked by the computer system and are available to be emphasized with the synthetic depth-of-field effect. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the fourth user interface object (e.g., **674***a*-**674***c*) and the fifth user interface object (e.g., **674***a*-**674***c*) have different visual appearances (e.g., different colors and/or shapes). Displaying a fourth user interface object indicating that the second subject is not being emphasized with the same visual appearance a fifth user interface object indicating that the third subject is not being emphasized provides the user with consistent feedback concerning subjects that are not being emphasized by a synthetic depth-of-field effect. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, in response to detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***ai*, **650***a***1**) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**), the computer system (e.g., **600**) ceases to display the first user interface object (e.g., **672***a*-**672***c*). Ceasing to display the first user interface object in response to detecting the gesture that corresponds to selection of the second subject provides the user with feedback that the first subject is no longer being emphasized. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, in response to detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**), the computer system (e.g., **640**) displays a sixth user interface object (e.g., **672***a*-**672***c*) (e.g., an object having a visual appearance (e.g., color and/or shape) different than the second user interface object) indicating that the first subject (e.g., **632**, **634**, **638**) is not being emphasized (e.g., by the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject and by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject). Displaying a sixth user interface object indicating that the first subject is not being emphasized in response to detecting the gesture that corresponds to selection of the second subject provides the user with feedback that the first subject is no longer being emphasized. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**) is detected while the one or more cameras are capturing the visual information (e.g., as described above in relation to FIGS. **6**O-**6**Z) (e.g., visual information that corresponds to the representation of the video) (e.g., capturing the video). In some embodiments, the user interface is a user interface for capturing media. In some embodiments, the user interface for capturing media includes a selectable user interface object for capturing media. In some embodiments, before the user interface is displayed, the computer systems detects selection of the user interface object for capturing media and, in response to detecting selection of the user interface object for capture media, the computer system displays the user interface and initiates capture of media via the one or more cameras. In some embodiments, the user interface object for capture media (e.g., a shutter affordance, start/stop affordance) is displayed concurrently with the first user interface object. In some embodiments, the first user interface object is displayed with one or more camera setting(s) user interface objects. Detecting the gesture that corresponds to selection of the second subject while the one or more cameras are capturing the visual information provides the user with more control of the system by helping the user change the synthetic depth-of-field effect that is applied while the video is being captured. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject is detected during playback (e.g., subsequent playback; non-live playback; playback after capture of the video is complete) of the video after capture of the video has ended (e.g., as described below in relation to FIGS. **6**AD-**6**AQ). In some embodiments, the representation of media is a representation of media that has been previously captured. In some embodiments, before displaying the user interface that includes the representation of the video and the first user interface object, the computer system displays a media gallery user interface that includes a thumbnail representation (among a plurality of thumbnail representations that represent a plurality of media items) that corresponds to the video. In some embodiments, in response to detecting a gesture directed to the thumbnail representation that corresponds to the video, the computer system displays the user interface that include the representation of the video and the first user interface object. Detecting the gesture that corresponds to selection of the second subject during the playback of the video provides the user with more control of the system by helping the user change the synthetic depth-of-field effect after the video has been captured. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the computer system (e.g., **600**) detects the same gestures (e.g., **650***o* and **650***ai*, **650***u* and **650***a***1**) to change the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to the second subject in the plurality of frames relative to the first subject while capturing the video as the gestures that the computer system detects to change the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to the second subject in the plurality of frames relative to the first subject while editing a previously captured video. In some embodiments, using the same gestures to change the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to the second subject in the plurality of frames relative to the first subject while capturing the video as the gestures that the computer system detects to change the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to the second subject in the plurality of frames relative to the first subject while editing a previously captured video makes the system easier to use because the same feedback and inputs are used for performing the same operations whether the device is recording video or editing recorded video.

In some embodiments, the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**) is a first single-tap gesture (e.g., **650***o*, **650***ai*) (e.g., a tap gesture directed to (e.g., on) the second subject) (and/or, in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject). Detecting a single-tap gesture that corresponds to selection of the second subject in the representation of the video media provides the user with more control of the system by helping the user change the synthetic depth-of-field effect after the video has been captured by providing a particular type of input. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**) is a first multi-tap gesture (e.g., **650***u*, **650***a***1**) (e.g., a multi-tap gesture (e.g., a double-tap gesture) directed to (e.g., on) the second subject) (and/or, in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject). In some embodiments, a multi-tap gesture includes more taps than a single-tap gesture. Detecting a multi-tap gesture that corresponds to selection of the second subject in the representation of the video media provides the user with more control of the system by helping the user change the synthetic depth-of-field effect after the video has been captured by providing a particular type of input. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**) is a first press-and-hold gesture (e.g., **650***z*) (e.g., a press-and-hold gesture directed to (e.g., on) the second subject) (and/or, in some embodiments, a non-press-and-hold gesture (e.g., a tap gesture, swipe gesture) directed to the subject). In some embodiments, a press-and-hold gesture is a gesture that is detected via the one or more input devices for a long period of time than the single-tap gesture. Detecting a press-and-hold gesture that corresponds to selection of the second subject in the representation of the video media provides the user with more control of the system by helping the user change the synthetic depth-of-field effect after the video has been captured by providing a particular type of input. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject (e.g., **632**, **634**, **638**) in the plurality of frames (e.g., as shown in **630**, **660**) relative to the first subject (e.g., **632**, **634**, **638**) includes, in accordance with a determination that the gesture that corresponds to selection of the second subject is a first type of gesture (e.g., **650***o*, **650***ai*) (e.g., a single tap gesture) (e.g., a tap gesture directed to (e.g., on) the second subject) (and/or, in some embodiments, a non-tap gesture (e.g., rotational gesture, swipe gesture) directed to the subject), altering the visual information captured by the one or more cameras to emphasize the second subject until first criteria are met (e.g., and not a second set of the plurality of frames). In some embodiments, changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject includes, in accordance with determination that the gesture that corresponds to selection of the second subject is a second type of gesture (e.g., **650***u*, **650***l*) (e.g., a multi-tap gesture (e.g., a double-tap gesture) directed to (e.g., on) the second subject) (and/or, in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject) that is different from the first type of gesture, altering the visual information captured by the one or more cameras to emphasize the second subject until second criteria are met. In some embodiments, the second criteria are different from the first criteria. In some embodiments, in accordance with a determination that the gesture that corresponds to selection of the second subject is the first type of gesture, the computer system applies the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject for a set of frames (e.g., first set of frames (e.g., that are displayed by the computer system)) that occur over a first duration of the video. In some embodiments, in accordance with determination that the gesture that corresponds to selection of the second subject is a second type of gesture, the computer system applies the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject for a set of frames (e.g., second set of frames (e.g., that are displayed by the capture system)) that occur over a second duration of the video that is longer than the first duration of the video. In some embodiments, in accordance with a determination that the gesture that corresponds to selection of the second subject is the first type of gesture, the visual information ceases to be altered for the duration of the video until a gesture is detected and/or until a predetermined time has passed and/or whether one or more automatic selection and/or irrespective of whether one or more automatic selection criteria are met for another subject (e.g., using one or more techniques as described above in relation to method **700**). In some embodiments, in accordance with a determination that the gesture that corresponds to selection of the second subject is the second type of gesture, the visual information ceases to be altered for the duration of the video until a gesture is detected (e.g., a gesture that corresponds to selection of a subject in the representation of the media) and irrespective of whether a predetermined period of time has passed. Altering the visual information differently based on the type of gesture (e.g., first type of gesture and/or second type of gesture) that is received provides the user with more control of the system by helping the user change the synthetic depth-of-field effect to alter the visual information in a particular way by providing a particular type of input. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the first type of gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) is a second single-tap gesture (e.g., **650***o*, **650***ai*) (e.g., a tap gesture directed to (e.g., on) the second subject) (and/or, in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject). In some embodiments, the second type of gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) is a second multi-tap gesture (e.g., **650***u*, **650***a***1**) (e.g., a multi-tap gesture (e.g., a double-tap gesture) directed to (e.g., on) the second subject) (and/or, in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject). In some embodiments, a multi-tap gesture includes more taps than a single-tap gesture. Altering the visual information differently based on the type of gesture (e.g., single-tap gesture and/or multi-tap gesture) that is received provides the user with more control of the system by helping the user change the synthetic depth-of-field effect to alter the visual information in a particular way by providing a particular type of input. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while the visual information captured by the one or more cameras is being altered to emphasize the second subject until first criteria are met (e.g., after a determination was made that the gesture that corresponds to selection of the second subject is a first type of gesture), the computer system detects a gesture of the first type of gesture (e.g., **650***b* e) (and not the second type of gesture) that is directed to the second subject. In response to detecting the gesture of the first type of gesture (e.g., **650***b* e) (e.g., while the visual information captured by the one or more cameras is being altered to emphasize the second subject until first criteria are met) that is directed to the second subject, the computer system alters the visual information captured by the one or more cameras to emphasize the second subject until second criteria are met (e.g., in relation to the temporary/non-temporary change to the synthetic depth-of-field effect discussed above in relation to FIGS. **6**S and **6**BE). In some embodiments, in accordance with a determination that the gesture that corresponds to selection of the second subject is the second type of gesture, the visual information ceases to be altered for the duration of the video until a gesture is detected (e.g., a gesture that corresponds to selection of a subject in the representation of the media) and irrespective of whether a predetermined period of time has passed (e.g., using one or more techniques as described above in relation to method **800**). In some embodiments, while the visual information captured by the one or more cameras is being altered to emphasize the second subject until first criteria are met, the computer system detects a gesture of the first type of gesture that is directed to a subject that is not the second subject and, in response to detecting the gesture of the first type of gesture that is directed to the subject (e.g., the first subject) that is not the second subject, the computer system alters the visual information captured by the one or more cameras to emphasize the subject that is not the second subject until first criteria are met. Altering the visual information captured by the one or more cameras to emphasize the second subject until second criteria are met in response to detecting the gesture of the first type of gesture that is directed to the second subject while the visual information captured by the one or more cameras is being altered to emphasize the second subject until first criteria are met provides the user additional control over the user interface by allowing the user to forgo inputting a more complex gesture to altering the visual information captured by the one or more cameras to emphasize the second subject until second criteria are met in certain situations, which reduces the number of inputs needed to perform an operation and can lead to more efficient control of the user interface for some users.

In some embodiments, changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject includes, in accordance with determination that the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject is a third type of gesture (e.g., **650***z*) (e.g., that is different from the first type of gesture and the second type of gesture) (e.g., a press-and-hold gesture) (and/or, in some embodiments, a non-press-and-hold gesture (e.g., a tap gesture, swipe gesture) directed to the subject), altering the visual information captured by the one or more cameras to emphasize the second subject by applying the synthetic depth-of-field effect to a fixed focal plane (e.g., a focal plane that does not change as a respective subject (e.g., a second subject) moves within the plurality of frames) in the plurality of frames. In some embodiments, the fixed focal plane includes a location at which the gesture that corresponds to selection of the second subject was detected via the one or more input devices. Altering the visual information differently based on the type of gesture (e.g., third type of gesture) that is received provides the user with more control of the system by helping the user change the synthetic depth-of-field effect to alter the visual information in a particular way by providing a particular type of input. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, in accordance with determination that the gesture that corresponds to selection of the second subject is the third type of gesture (e.g., **650***bb***2** and/or **650***bi*), displaying an indication of a distance to the fixed focal plane (e.g., **694***bc* and/or **694***bj*) (e.g., at a location on the representation of the video) (e.g., numbers, words, and/or symbols) (e.g., 0.01 mm-50 meters) (e.g., a distance between the computer system and/or one or more cameras of the computer system to a plane that is in the field-of-view of the one or more cameras) (e.g., on a representation of a previously captured video and/or a representation of a video that is being captured). Displaying an indication of a distance to the fixed focal plane in response to detecting the request to change subject emphasis at the second time in the video provides visual feedback to the user regarding the fixed focal plane that was selected, which provides improved visual feedback.

In some embodiments, while displaying the second user interface object (and determining whether emphasis should be changed from the first subject to the second subject and after detecting the gesture that corresponds to selection of the second subject) and not displaying the first user interface object, and in accordance with a determination that the first subject (e.g., relative to the other subjects) in the plurality of frames (e.g., in a subset of the plurality of frames) satisfies a set of automatic selection criteria (e.g., as described above in relation to methods **700**), the computer system displays (redisplays) the first user interface object and ceases to display the second user interface object (and changes (automatically (e.g., without detecting a gesture directed to the first subject and/or to a location on the user interface)) the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject). Automatically displaying the first user interface object and ceasing to display the second user interface object when prescribed conditions are met allows the computer system to automatically switch between subjects that are emphasized and/or not emphasized based on the prescribed conditions. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, in accordance with a determination that the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) corresponds to selection of the second subject is a fourth type of gesture (e.g., **650***o*, **650***ai*) (e.g., single tap gesture) (and/or, in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject), the set of automatic selection criteria is a first set of automatic selection criteria (e.g., that when satisfied causes the computer system to permanently switch emphasis to another subject when an emphasized subject goes out of the frame and irrespective of whether the emphasized subject goes back into the frame). In some embodiments, in accordance with a determination that the gesture corresponds to selection of the second subject is a fifth type of gesture (e.g., **650***u*, **650***a***1**) (e.g., a multi-tap gesture (e.g., a double-tap gesture)) (and/or, in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject) that is different from the fourth type of gesture, the set of automatic selection criteria is a second set of automatic selection criteria (e.g., that when satisfied causes the computer system to temporarily switch emphasis to another subject until an emphasized subject comes back in frame after going out of the frame) that is different from the first set of automatic selection criteria (e.g., as discussed above in relation to FIGS. **6**O-**6**V and FIGS. **6**AI-**6**AM). Automatically changing the set of automatic selection criteria when prescribed conditions are met allows the computer system to switch the set of automatic selection criteria that used to automatically switch between which subjects are being emphasized and/or automatically change the synthetic depth-of-field effect that is applied based on the prescribed conditions. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, before detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject, the set of automatic selection criteria includes a criterion that is satisfied when a respective subject (e.g., **632**, **634**, **638**) in the representation (e.g., **630**, **660**) of the media satisfies a first selection confidence threshold (e.g., a confidence threshold based on the detected movement, gaze, face, distance from a viewpoint of the one or more cameras of the respective subject). In some embodiments, in response to detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**), the set of automatic selection criteria includes a criterion that is satisfied when the respective subject (e.g., **632**. **634**, **638**) in the representation of the media satisfies a second selection confidence threshold (e.g., a confidence threshold based on the detected movement, gaze, face, distance from a viewpoint of the one or more cameras of the respective subject) that is higher than the first selection confidence threshold (e.g., a confidence threshold based on the detected movement, gaze, face, distance from a viewpoint of the one or more cameras of the respective subject). In some embodiments, when the set of automatic selection criteria includes the criterion that is satisfied when the respective subject in the representation of the media satisfies the second selection confidence threshold, the number of changes to the synthetic depth-of-field effect is decreased as opposed to the number of changes that occur when the set of automatic selection criteria includes the criterion that is satisfied when the respective subject in the representation of the media satisfies the first selection confidence threshold. Automatically increasing a threshold for the automatic selection criteria to be satisfied when prescribed conditions are met allows the computer system to reduce the amount of changes in the synthetic depth-of-field effect that is applied after a gesture to change the synthetic depth-of-field effect is received. Performing an optimized operation when a set of conditions has been met without requiring further user input enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject (e.g., **632**, **634**, **638**) in the plurality of frames relative to the first subject e.g., **632**, **634**, **638**) changes {(e.g., a magnitude and/or location of the synthetic depth of field effect changes) and, in some embodiments, the synthetic depth of field effect changes through a plurality of intermediate states.} over time (e.g., over the first capture duration) as the second subject moves within a field-of-view of the one or more cameras (and the second subject continues to be emphasized relative to the first subject in each of the plurality of frames) (e.g., using one or more techniques as described above in relation to method **700**) (e.g., as discussed above in relation to FIGS. **6**O-**6**V). In some embodiments, as a part of displaying the second user interface object, the computer system moves the second user interface object moves as the second subject moves in the plurality of frames.

In some embodiments, the user interface includes a video navigation user interface element (e.g., **664**) (and, in some embodiments, the video navigation user interface element does not include the representation of the video and/or the first user interface object and/or the second user interface object) (and, in some embodiments, the synthetic depth-of-field effect is not applied to the video navigation user interface element while being applied to the representation of the video) (and, in some embodiments, the video navigation user interface element is displayed with the representation of the video and/or the first user interface object and/or the second user interface object).

In some embodiments, while displaying the video navigation user interface element (e.g., **664**) and in response to detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject, the computer system (e.g., **600**) displays, in the video navigation user interface element (e.g., **664**) (e.g., a time line scrubber), a user interface object (e.g., **688***c*, **688***e*, **688***h*) indicating that a user-specified change occurred (e.g., concerning which subjects have been emphasized) at a time in (during playback of, during capture of) the video (e.g., a first indication that represents the changing of the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject) (e.g., as described below in relation to method **900**). In some embodiments, a user interface object indicating that a user-specified change occurred at the time (e.g., a time when the gesture that corresponds to selection of the second subject was detected) in the video is displayed at a location that corresponds to a frame in the video at which the second subject was displayed when the gesture that corresponds to selection of the second subject was detected. Displaying a user interface object indicating that a user-specified change occurred at a time in the video in response to detecting the gesture provides the user with feedback that the gesture caused a user-specified change to a synthetic depth-of-field effect occurred at the time in the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the user interface object (e.g., **688***c*, **688***e*, **688***h*) indicating that the user-specified change occurred includes, in accordance with a determination that the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***ai*, **650***a***1**) corresponds to selection of the second subject (e.g., **632**, **634**, **638**) is a sixth type of gesture (e.g., single tap gesture) (and/or, in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject) (e.g., a request to make a temporary emphasis change), a fourth visual appearance (e.g., color, highlighting, text, shape) (e.g., a bracket without a shape (e.g., circle) inside of it). In some embodiments, the user interface object (e.g., **688***c*, **688***e*, **688***h*) indicating that the user-specified change occurred includes, in accordance with a determination that the gesture corresponds to selection of the second subject is a seventh type of gesture (e.g., **650***o*, **650***u*, **650***z*, **650***ai*, **650***a***1**) (e.g., a multi-tap gesture (e.g., a double-tap gesture)) (and/or, in some embodiments a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject) (e.g., a request to make a permanent emphasis change) that is different from the sixth type of gesture, a fifth visual appearance (e.g., color, highlighting, text, shape) (e.g., a bracket with a shape (e.g., circle) inside of it) that is different from the fourth visual appearance (e.g., as discussed above in relation to FIGS. **6**AI-**6**AM). Displaying the user interface indicating that a user-specified change occurred differently based on the type of gesture that was received provides the user with feedback that a particular synthetic depth-of-field effect that was applied to the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, displaying the second user interface object (e.g., **672***a*-**672***c*, **678***a*-**678***b*) includes, in accordance with a determination that the gesture corresponds to selection of the second subject (e.g., **632**, **634**, **638**) is an eighth type of gesture (e.g., **650***o*, **650***ai*) (e.g., single tap gesture) (and/or, in some embodiments a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject) (e.g., a request to make a temporary emphasis change), displaying the second user interface object (e.g., **672***a*-**672***c*) with a sixth visual appearance (e.g., color, highlighting, text, shape) (e.g., a bracket without a shape (e.g., circle) inside of the bracket). In some embodiments, displaying the second user interface object (e.g., **672***a*-**672***c*, **678***a*-**678***b*) includes, in accordance with a determination that the gesture corresponds to selection of the second subject is a ninth type of gesture (e.g., **650***u*, **650***a***1**) (e.g., a multi-tap gesture (e.g., a double-tap gesture)) (and/or, in some embodiments a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject) (e.g., a request to make a permanent emphasis change) that is different from the eighth type of gesture, displaying the second user interface object (e.g., **678***a*-**678***b*) with a seventh visual appearance (e.g., color, highlighting, text, shape) e.g., a bracket with a shape (e.g., circle) inside of the bracket) that is different from the sixth visual appearance. Displaying the second user interface object differently based on the type of gesture that was received provides the user with feedback that a particular synthetic depth-of-field effect that was applied to the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the user interface is a media capturing user interface (e.g., a user interface for capturing media, a user interface that includes a selectable user interface object for capturing media, a user interface that does not include a video scrubber) (e.g., user interface of FIGS. **6**B-**6**AB, as described in relation to method **700**). In some embodiments, after detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject and while displaying the user interface (e.g., and after capturing the video), the computer system detects, via the one or more input devices, one or more gestures (e.g., one or more tap gestures, swipe gestures, and/or press-and-hold gestures, a sequence of gestures). In some embodiments, in response to detecting the one or more gestures, the computer system displays a media editing user interface (e.g., user interface of FIGS. **6**AD-**6**AQ) (e.g., user interface for editing media, a user interface that does not include a selectable user interface object for capturing media, a user interface that includes a video scrubber) (e.g., as described above in relation to FIG. **6**AC). In some embodiments, in response to detecting the one or more gestures, the computer system (e.g., **600**) displays a media editing user interface that includes a second representation of the video that includes a third plurality of frames. In some embodiments, the second representation (e.g., **660**) includes the first subject and the second subject. In some embodiments, in response to detecting the one or more gestures, the computer system displays a media editing user interface that includes a sixth user interface object (e.g., **672***a*-**672***c*) indicating that the first subject is being emphasized by a synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the third plurality of frames relative to the second subject. In some embodiments, while displaying the media editing user interface, the computer system detects, via the one or more input devices, a second gesture (e.g., **650***ai*, **650***a***1**) that corresponds to selection of the second subject (e.g., **632**, **634**, **638**) in the second representation (e.g., **660**) of the video (e.g., a tap gesture, swipe gesture, and/or press-and-hold gesture). In some embodiments, the second gesture is the gesture of the same type as the type of gesture that corresponds to selection of the second subject in the representation of the video (e.g., that was displayed in the media capturing user interface). In some embodiments, the second type of gesture will cause the computer system to perform the same functions in response to receiving the second type of gesture as the type of gesture that corresponds to selection of the second subject in the representation of the video (e.g., when the computer system performs the same functions in response to receiving a type of gesture to change the synthetic depth-of-field effect, irrespective of whether the video is being captured (and/or record) or the video is being edited after it has been captured and/or recorded. In some embodiments, while displaying a video that does not have a synthetic depth-of-field effect applied (was captured when the video was not operating in a cinematic mode) or does not have depth information (or with insufficient depth information to generate a synthetic depth-of-field effect) (e.g., irrespective of whether the video is being captured and/or has been captured), the computer system does not apply and/or change a synthetic depth-of-field effect to alter the visual information captured by the one or more cameras and/or perform any action in response to receiving one or more inputs to change the synthetic depth-of-field effect. In some embodiments, in response to detecting the second gesture that corresponds to selection of the second subject in the second representation of the video, the computer system changes the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the third plurality of frames relative to the first subject. In some embodiments, in response to detecting the second gesture that corresponds to selection of the second subject in the second representation of the video, the computer system displays a seventh user interface object indicating that the second subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the third plurality of frames relative to the first subject. In some embodiments, the representation of the video is a representation of a video that is currently being captured and the second representation of the video is a representation of the video that has been previously captured. In some embodiments, the same gestures (e.g., single tap gesture, multi-tap gesture, press-and-hold gesture) that cause the synthetic depth-of-field effect to be changed when the computer system is in a video editing mode causes the synthetic depth-of-field effect to be changed the computer system is in a video capturing mode. Performing the same operations when a second gesture that corresponds to selection of the second subject in the second representation of the video is received during editing media that were performed when a gesture that corresponds to selection of the second subject in the second representation of the video was received during capturing the media provides the user more control over the system by allowing the user to control multiple user interfaces in the same way. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, after detecting the gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that corresponds to selection of the second subject (e.g., **632**, **635**, **638**) and changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject, the computer system detects a first gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) (e.g., a press-and-hold gesture) (and/or, in some embodiments, a non-press-and-hold gesture (e.g., a tap gesture, a swipe gesture)) that is directed to the representation of the media (e.g., **630**, **660**) (and not directed to any subject in the representation of the media). In some embodiments, in response to detecting the first gesture (e.g., **650***o*, **650***u*, **650***z*, **650***a***1**, **650***ai*) that is directed to the representation of the media, the computer system (e.g., **600**) modifies the changed synthetic depth-of-field effect to alter the visual information captured by the one or more cameras (e.g., based on the location of the gesture that is directed to the representation of media (and not directed to any subject in the representation of the media)) (e.g., as described above in relation to FIGS. **6**O-**6**V and FIGS. **6**AI-**6**AL). In some embodiments, as a part of modifying the changed synthetic depth-of-field effect to alter the visual information captured by the one or more cameras in response to detecting the gesture that is directed to the representation of the media, the computer system alters the visual information captured by the one or more cameras to emphasize the second subject applying the synthetic depth-of-field effect to a fixed focal plane (e.g., a focal plane that does not change as a respective subject (e.g., a second subject) moves within the plurality of frames).

In some embodiments, the user interface includes a selectable user interface object (e.g., **622***e*) for changing the synthetic depth-of-field effect that, when selected, changes (e.g., changes a characteristic of the effect (e.g., a visual intensity of the effect)) the synthetic depth-of-field effect. In some embodiments, while displaying the user interface for changing the synthetic depth-of-field effect and while the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject, the computer detects one or more gestures that include a gesture directed to the a selectable user interface object for changing the synthetic depth-of-field effect and, in response to detecting the one or more gestures that include the gesture directed to the a selectable user interface object for changing the synthetic depth-of-field effect, modifies the changed synthetic depth-of-field effect to alter the visual information captured by the one or more camera differently (and, in some embodiments, while continuing to emphasize the second subject in the plurality of frames relative to the first subject and/or continuing to display the second user interface object). Displaying a selectable user interface object for changing the synthetic depth-of-field effect that, when selected, changes the synthetic depth-of-field effect provides the user with more control over the system and allows the user to change the synthetic depth-of-field effect that is applied to the video. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the user interface includes a selectable user interface object for controlling a video capture mode (e.g., a cinematic video capture mode) (e.g., **622***c*) (e.g., as described above in relation to **620***e* and **622***c*). In some embodiments, the selectable user interface object for controlling the video capture mode (e.g., **622***c*) is displayed with (e.g., includes) a status indication that indicates that the video capture mode is in an active state (e.g., **622***c* in FIG. **6**AP). In some embodiments, while displaying the user interface that includes the representation (e.g., **660**) of the video, the first user interface object (e.g., **672***a*-**672***c*, **678***a*-**678***b*) (and/or the second user interface object), and the selectable user interface object for controlling the video capture mode (e.g., **622***c*) is displayed with (e.g., includes) the status indication that indicates that the video capture mode is in an active state (e.g., **622***c* in FIG. **6**AP), the computer system (e.g., **600**) applies the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject (e.g., and/or applying the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject). In some embodiments, while applying the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject (e.g., **632**, **634**, **638**) (e.g., and/or while displaying the user interface that includes the representation of the video, the first user interface object (and/or the second user interface object), and the selectable user interface object for controlling the video capture mode with the status indication that indicates that the video capture mode is in an active state), the computer system detects a gesture (e.g., **650***ap***1**) directed to the selectable user interface object for controlling the video capture mode (e.g., a tap gesture) (and/or, in some embodiments, a non-tap gesture (e.g., a press-and-hold gesture, a swipe gesture)). In some embodiments, in response to detecting the gesture directed to the selectable user interface object for controlling the video capture mode (e.g., **620***e*), the computer system (e.g., **600**) ceases to apply the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject (e.g., as described above in relation to FIG. **6**AQ) (e.g., and/or ceases to apply the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject) (e.g., ceases to apply any synthetic depth-of-field effect). In some embodiments, in response to detecting the gesture directed to the selectable user interface object for controlling the video capture mode, the computer system displays the selectable user interface object for controlling a video capture mode with a status indication that indicates that the video capture mode is in an inactive state. In some embodiments, in response to detecting the gesture directed to the selectable user interface object for controlling the video capture mode, the computer system ceases to display the first user interface object (and/or the second user interface object). In some embodiments, after ceasing to apply the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject in response to detecting the gesture directed to the selectable user interface object for controlling the video capture mode, the computer system detects a second gesture directed to the selectable user interface object for controlling the video capture mode and, in response to detecting the second gesture directed to the selectable user interface object for controlling the video capture mode, applies (reapplies) the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject (e.g., and/or applies the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the second subject in the plurality of frames relative to the first subject) and/or displays the selectable user interface object for controlling the video capture mode with the status indication that indicates that the video capture mode is in the active state. In some embodiments, after ceasing to apply the synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the first subject in the plurality of frames relative to the second subject, the computer systems displays a representation of the video without the synthetic depth-of-field effect applied. In some embodiments, the representation of the video that is displayed without the synthetic depth-of-field effect applied includes a physical depth of field effect that occurs naturally due to the camera lens but is less prominent (e.g., less blurred) than the synthetic depth of field effect. Displaying the selectable user interface object for controlling the video capture mode that turns on/off the application of the synthetic depth-of-field effect reduces the number of operations needed for a the user to change the synthetic depth-of-field effect that is applied to the video. Reducing the number of operations enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, before detecting the gesture (e.g., **650***ap***1**) directed to the selectable user interface object for controlling the video capture mode (e.g., **622***c*), the representation (e.g., **660**) is displayed with a first amount of blur (e.g., synthetic blur (and, in some embodiments, and natural blur), synthetic blur caused by the synthetic depth-of-field effect being applied) (e.g., foreground and background blur). In some embodiments, in response to detecting the gesture (e.g., **650***ap***1**) directed to the selectable user interface object for controlling the video capture mode, the computer system displays, via the display generation component, the representation (e.g., **660**) of the video with a second amount of blur (e.g., natural blur) that is lower than the first amount of blur. In some embodiments, in response to detecting the gesture directed to the selectable user interface object for controlling the video capture mode, the computer system reduces the amount of blur in the representation of the video media and/or removes the synthetic blur (e.g., blur caused by the synthetic depth-of-field effect being applied). Displaying the representation of video with different amounts of blur in response to detecting the gesture directed to the selectable user interface object for controlling the video capture mode provides the user with visual feedback concerning whether a synthetic depth-of-field effect will be and/or is applied to the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, in response to detecting the gesture (e.g., **650***o*, **650***u*, **650***ai*, **650***a***1**) that corresponds to selection of the second subject, the computer system (e.g., **600**) configures a focus setting of one or more cameras to focus on the second subject (e.g., **638**) in the representation of the video. In some embodiments, the computer system is not configured to automatically change the focus setting of the one or more cameras (e.g., between one or more portions of the representation of the video (e.g., based on changes in the representation of the media while the representation of media includes the first subject)) for at least a predetermined period of time (e.g., 30-90 seconds). In some embodiments, while the computer system is configured to focus on the second subject (e.g., **632**, **634**, **638**) in the representation (e.g., **630**, **660**) of the video, the computer system (e.g., **600**) detects a second gesture (e.g., **650***ai*) (e.g., a single-tap gesture, a gesture that is not a press-and-hold gesture) (and/or, in some embodiments, a non-tap gesture (e.g., a rotational gesture, a swipe gesture)) that is directed to the representation (e.g., **660**) of the video (and not directed to any subject in the representation of the media). In some embodiments, in response to detecting the second gesture (e.g., **650***ai*) that is directed to the representation of the video, the computer system (e.g., **600**) is enabled to automatically change the focus setting of the one or more cameras for at least the predetermined period of time (e.g., as described below in relation to FIGS. **6**AI-**6**AM). In some embodiments, while the first user interface object is displayed, the one or more cameras are focused on the first subject. In some embodiments, in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video media, the computer system changes the one or more cameras from being focused on the first subject to be focused on the second subject. In some embodiments, in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video media, the computer system is not configured to maintain a set of auto exposure values.

In some embodiments, the representation of the video includes a representation (e.g., visible representation) of a subset of content from a first portion (e.g., live preview **630** of FIG. **6**R) of a field-of-view of one or more cameras. In some embodiments, the field-of-view of the one or more cameras extends beyond the first portion of the field-of-view to a second portion (e.g., **603** of FIG. **6**R**1**) of the field-of-view of the one or more cameras that is not included in the representation (e.g., the displayed representation of the video) of the video (e.g., without including a representation of content from the second camera (e.g., as discussed below)). In some embodiments, a determination as to which subject to emphasize is based on information from the second portion of the field-of-view of the one or more cameras during the video (e.g., during capture of the video or after capture of the video). In some embodiments, the first portion of the video and the second portion of the video is in the field-of-view of a first camera. In some embodiments, the first portion of the video is in the field-of-view of the first camera and the second portion of the video is in the field-of-view of a second camera that is different from the first camera. In some embodiments, the first portion of the video is outside of the field-of-view of the first camera and inside of the field-of-view of the second camera (e.g., a camera that has a wider field-of-view than the first camera). In some embodiments, the determination as to which subject to emphasize includes automatically selecting a respective subject to be emphasized before the respective subject is visible in the first portion of the field of view. In some embodiments, the determination as to which subject to emphasize includes: detecting the respective subject move out of the first portion of the field-of-view while the respective subject is being emphasized; and in response to detecting the respective subject move out of the first portion of the field-of-view: in accordance with a determination that the respective subject moves out of the second portion of the field of view, automatically select a different subject to be emphasized; and in accordance with a determination that the first subject remains in the second portion of the field of view, forgo selecting a different subject to be emphasized for at least a predetermined period of time (e.g., and continuing to emphasize the respective subject if the respective subject returns to the first portion of the field of view) (e.g., as discussed above in relation to automatic change indicator **686***c*). In some embodiments, if the predetermined period of time elapses without the respective subject returning to the first portion of the field of view, the computer system automatically selects a different subject to be emphasized. In some embodiments, if the respective subject ceases to be detected in the second portion of the field-of-view (e.g., whether or not the predetermined period of time has elapsed), the computer system automatically selects a different subject to be emphasized.

Note that details of the processes described above with respect to method **800** (e.g., FIG. **8**) are also applicable in an analogous manner to the methods described herein. For example, methods **700**, **900**, **1100**, and/or **1300** optionally includes one or more of the characteristics of the various methods described above with reference to method **800**. For example, the method described below in method **900** can be used to display media in a media editing user interface after the media is captured using one or more techniques described in relation to method **800**. For brevity, these details are not repeated above and/or below.

FIG. **9** is a flow diagram illustrating an exemplary method for altering visual media using a computer system in accordance with some embodiments. Method **900** is performed at a computer system (e.g., **100**, **300**, **500**, **600**, a smartphone, and/or a smartwatch) that is in communication with a display generation component (e.g., a display controller and/or a touch-sensitive display system). In some embodiments, the computer system is in communication with one or more input devices (e.g., a touch-sensitive surface) and/or one or more cameras (e.g., one or more cameras (e.g., dual cameras, triple camera, quad cameras, etc.) on the same side or different sides of the computer system (e.g., a front camera, a back camera)). Some operations in method **900** are, optionally, combined, the orders of some operations are, optionally, changed, and some operations are, optionally, omitted.

As described below, method **900** provides an intuitive way for altering visual media. The method reduces the cognitive burden on a user for altering visual media, thereby creating a more efficient human-machine interface. For battery-operated computing devices, enabling a user to alter visual media faster and more efficiently conserves power and increases the time between battery charges.

The computer system (e.g., **600**) displays (**902**), via the display generation component, a user interface (e.g., a media viewer/editing user interface) (and, in some embodiments, the user interface is displayed using one or more techniques as described above in relation to methods **700** and **800**) that includes (e.g., concurrently displaying) concurrently displaying (**904**) a representation (e.g., **660**) (e.g., of a frame (an image)) of a video (e.g., a video media) (e.g., video captured using one or more techniques as described above in relation to methods **700** and **800**) having a first duration. The video includes a plurality of changes in subject (e.g., **632**, **634**, **638**) emphasis in the video, where a change in subject emphasis in the video includes a change in appearance of visual information captured by one or more cameras to emphasize one subject relative to one or more elements in the video (e.g., via a synthesized depth of field-of-effect, as described above in relation to methods **700** and **800**) (e.g., a first subject is emphasized at a first time with a change to a second subject being emphasized at a second time). The plurality of changes include an automatic change in subject emphasis at a first time during the first duration (e.g., as described above in relation to FIGS. **6**D-**6**K) (e.g., a change that occurs without intervening user input/gesture(s) (e.g., using one or more techniques as described above in relation to methods **700** and **800**; at least one automatic change) and a user-specified change in subject emphasis at a second time during the first duration that is different from the first time (e.g., as described above in relation to FIGS. **6**O-**6**Q, FIGS. **6**U-**6**V, and FIGS. **6**Z-**6**AB) (e.g., a manual change, a change that occurred in response to one or more gestures (e.g., using one or more techniques as described above in relation to methods **800**); at least one user-specified change).

The computer system (e.g., **600**) displays (**902**) the user interface that includes concurrently displaying (**906**) a video navigation user interface element (e.g., **664**) (e.g., timeline scrubber) for navigating through (e.g., a plurality of frames (e.g., images) of) the video that includes a representation (e.g., **686***a*, **686***b*, **686***d*, **686***f*, and/or **686***g*) (e.g., an image/frame of video) of the first time and a representation (e.g., **688***c*, **688***e*, and/or **688***h*) (e.g., an image/frame of video) of the second time. The representation (e.g., **688***c*, **688***e*, and/or **688***h*) of the second time is visually distinguished from other times (e.g., other representations of other times) (e.g., **664***b*) in the first duration of the video that do not correspond to changes in subject emphasis. In some embodiments, the representation of the first time is visually distinguished from other times (in the first duration of the video that do not correspond to changes in subject emphasis. The representation (e.g., **686***a*, **686***b*, **686***d*, **686***f*, and/or **686***g*) (e.g., **664***b*) of the first time is visually distinguished from the representation (e.g., **688**c, **688**e, and/or **688**h) (e.g., **664**b) of the second time (e.g., to indicate that a user-specified change in subject emphasis occurred at a location). In some embodiments, the representation of the first time is visually distinguished from the representation of the second time using some visual distinction other than a location of the representation of the first time in the video navigation user interface element (e.g., that the location of the representation of the first time is displayed closer to an indication (e.g., graphical object) of the automatic change than the representation of the second time, that the location of the representation of the second time is displayed closer to an indication (e.g., the graphical object, the representation of the second time is displayed with a different synthetic depth-of-field effect that has been applied than the representation of the first time (e.g., portions of the representation of the second time is blurred different from corresponding portions of the representation of the first time)) of the automatic change than the representation of the first time, the representation is displayed). In some embodiments, the first time is a time where the computer system has automatically determined that the automatic change should occur. In some embodiments, the first time is a time (e.g., or more times) at which the emphases of the subject(s) has changed a representation that is displayed at the first time during playback of the video. In some embodiments, the second time is a time where a user input/gesture was detected that caused the user-specified change to occur. In some embodiments, the second time is time at which the emphases of the subject(s) has changed a representation that is displayed at the second time during playback of the video. Displaying a representation of a first time (e.g., automatic change) that is visually distinguished from other representations (e.g., representations of a second time (e.g., user-specified change)) provides the user with visual feedback that a different change in emphasis has occurred at the first time than at other times. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the automatic change in subject emphasis is a first synthetic depth-of-field effect that alters the visual information captured by one or more cameras (e.g., one or more cameras of the computer system and/or another computer system) to emphasize a first subject (e.g., **632**, **634**, **638**) (e.g., third subject, fourth subject, or another subject) in the video relative to a second subject (e.g., **632**, **634**, **638**) (e.g., third subject, fourth subject, or another subject) in the video (e.g., using one or more techniques as described above in relation to methods **700** and **800**) (e.g., as described above in relation to Table I). The user-specified change in subject emphasis is a second synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize a third subject (e.g., first subject, second subject, or another subject) in the video relative to a fourth subject (e.g., first subject, second subject, or another subject) in the video (e.g., using one or more techniques as described above in relation to methods **700** and **800**) (e.g., as described above in relation to Table I).

In some embodiments, the video navigation user interface element (e.g., **664**) for navigating through the video does not include a graphical user interface object (e.g., **686**a, **686**b, **686**d, **686**f, and/or **686**g) indicating that the automatic change occurred at the first time. In some embodiments, while the video navigation user interface element for navigating through the video does not include the graphical user interface object indicating that the automatic change occurred at the first time, the video navigation user interface element for navigating through the video includes a graphical user interface object indicating that the user-specified change occurred at the second time. Displaying a graphical user interface object indicating that the automatic change occurred at the first time provides the user with visual feedback that an automatic change in emphasis has occurred at the first time than at other times. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, video navigation user interface element (e.g., **664**) for navigating through the video includes, at a first location (e.g., location of (e.g., **686**a, **686**b, **686**d, **686**f, and/or **686**g) on the video navigation user interface element (e.g., above, below, and/or on a first frame of the video), a first graphical user interface object (e.g., **686**a, **686**b, **686**d, **686**f, and/or **686**g) indicating that the automatic change occurred (e.g., concerning which subjects have been emphasized) at the first time in (during playback of, during capture of) the video (e.g., indicating that an automatic change has occurred concerning which subjects have been emphasized in a first frame of the video). In some embodiments, the first graphical user interface object (e.g., **686**a, **686**b, **686**d, **686**f, and/or **686**g) has a first visual appearance (e.g., color, highlighting, text, shape) (e.g., a diamond, a white user interface object, a white diamond). In some embodiments, the video navigation user interface element (e.g., **644**) for navigating through the video includes, at a second location (e.g., location of **688**c, **688**e, **688**h) on the video navigation user interface element that is different from the first location, a second graphical user interface object (e.g., **688**c, **688**e, **688**h) indicating that the user-specified change occurred (e.g., concerning which subjects have been emphasized) at the second time, different from the first time, in the video (e.g., indicating that a user-specified change occurred concerning which subjects have been emphasized in a second frame of the video that is different from the first frame). In some embodiments, the second graphical user interface object (e.g., **688**c, **688**e, **688**h) has a second visual appearance (e.g., color, highlighting, text, shape) (e.g., a circle, a yellow user interface object, a yellow circle) that is different from the first visual appearance (e.g., irrespective of the location of the display in which the first user interface object and the second user interface object are displayed). In some embodiments, manual changes made during video capture looks the same as manual changes made during editing video (and, in some embodiments, manual changes look different. Displaying a first graphical user interface object indicating that the automatic change occurred with a different visual appearance than a second graphical user interface object indicating that the user-specified change occurred provides the user with visual feedback to distinguish between representations of when an automatic change in emphasis has occurred and a user-specified change has occurred. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the video navigation user interface element for navigating through the video includes, at a respective location on the video navigation user interface element, a graphical user interface object indicating that a respective change (e.g., a next change) has occurred at a respective time in the video that occurs before the second time in the video. In some embodiments, in accordance with a determination that the respective change that occurred at the respective time in the video is a respective user-specified change, the computer system displays a visual indication (e.g., **688**c**1**, **688**e**1**, **688**h**1**, **688**i**1**, **688**k**1**, and/or **688**m**1**) (e.g., a color (e.g., yellow and/or white) that is different the one or more colors of the video navigation element when the visual indication is not displayed) that extends from the respective location (e.g., location of **688**c, **688**e, **688**h, **688**i, **688**k, and/or **688**m) on the video navigation user interface element (e.g., **664**) to the second location (e.g., **686**d and/or **686**f) on the video navigation user interface element. In some embodiments, in accordance with a determination that the respective change that occurred at the respective time in the video is a respective automatic change and/or in accordance with a determination that the respective change occurs at the respective time in the video is not the respective user-specified change, forgoing displaying the visual indication that extends from the respective location on the video navigation user interface element to the second location on the video navigation user interface element. Displaying a visual indication that extends from the respective location on the video navigation user interface element to the second location on the video navigation user interface element provides visual feedback that informs the user how long a user-specified change will take place and/or over what particular portions of the video that a user-specified change will impact the video, which provides improved visual feedback.

In some embodiments, the second graphical user interface object (e.g., **688**c, **688**e, **688**h) is displayed at or adjacent to the representation (e.g., **664**b) of the second time. In some embodiments, the second graphical user interface object is displayed closer to the representation of the second time than the first graphical user interface object is displayed to the representation of the second time. In some embodiments, the first graphical user interface object is displayed on or adjacent to the representation of the first time. In some embodiments, the representation of the second time includes the second graphical user interface object. In some embodiments, the representation of the first time includes the first graphical user interface object. Displaying the second graphical user interface object is displayed on or adjacent to the representation of the second time provides the user with visual feedback concerning when a user-specified change has occurred. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the user-specified change in subject emphasis was caused in response to a gesture (e.g., **650**o, **650**u, **650**z) (e.g., a single-tap gesture, a multi-tap gesture (e.g., a double-tap gesture), a press-and-hold gesture) that was detected while the video was being captured (e.g., being captured by one or more cameras of the computer system or another computer system) (e.g., using one or more techniques as described above in relation to method **800**) (e.g., and/or was captured while a media capture user interface was displayed, while a selectable user interface object for capturing media was in an active state). In some embodiments, the user-specified change in subject emphasis was caused in response to a gesture that was detected after the video had been captured (e.g., while displaying a user interface that is a media editing user interface, while displaying the user interface that includes the representation of the video and the video navigation user interface element). Displaying a representation of the user-specified change in subject emphasis be caused in response to a gesture while the video was being captured provides the user with visual feedback concerning changes to the video that occurred while the video was being captured. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while displaying the representation (e.g., **688**c, **688**e, **688**h) (e.g., **664**) of the second time (e.g., and/or while displaying a graphical user interface object indicating that the user-specified change occurred at the second time), the computer system (e.g., **600**) detects a gesture (e.g., **650**ak) directed to the representation (e.g., **688**c, **688**e, **688**h) (e.g., **664**) of the second time (e.g., and/or directed to the graphical user interface object that the user-specified change occurred at the second). In some embodiments, in response to detecting the gesture (e.g., **650**ak) directed to the representation (e.g., **688**c, **688**e, **688**h) of the second time, the computer system displays a second representation (e.g., **660** in FIG. **6**AL) of the second time during the first duration of the video. In some embodiments, the second representation of the second time during the first duration of video is bigger than the representation (e.g., the first representation) of the second time. In some embodiments, the second representation of the second time during the first duration of video is a representation of the video being played back and the representation of the second time is a thumbnail representation (e.g., a representation of the media that is not being played back). In some embodiments, in response to detecting the gesture directed to the representation of the second time, replacing the representation of the video with the second representation of the second time. Displaying the second representation of the second time in response to detecting the gesture directed to the representation of the second time provides the user with more control of the system by allow the user to navigate to a portion of the video that corresponds to the representation that the gesture was directed towards. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while displaying the video navigation user interface element (e.g., **664**), the computer system (e.g., **600**) detects a gesture (e.g., **6***ar*) directed to the video navigation user interface element. In some embodiments, in response to (e.g., and/or while) detecting the gesture (e.g., **6***ar*) directed to the video navigation user interface element (e.g., **664**), navigating through the representation of the video (e.g., as described above in relation to FIG. **6**R). In some embodiments, as a part of navigating through the video, the computer system displays a plurality of representations of the video in sequence while the detecting gesture directed to the video navigation user interface element and/or based on the movement of the gesture directed to the video navigation user interface element. Navigating through the video in response to detecting the gesture directed to the video navigation user interface element provides the user with more control of the system by allow the user to navigate through the video via the gesture. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, before the detecting the gesture (e.g., **650***ar*) directed to the video navigation user interface element, the video navigation user interface element includes a first playhead (e.g., **664***a***1**) (e.g., a vertical line, an indicator of a time/location of a current representation of the video that is displayed, an indicator of a time/location of video playback) at a first playhead location (e.g., location of **66***a***1** in FIG. **6**AR). In some embodiments, the representation (e.g., **660**) of the video is a representation (e.g., **660**) of the video at a time that corresponds to the first playhead location (e.g., location of **66***a***1** in FIG. **6**AR). In some embodiments, in response to (e.g., and/or while) detecting the gesture (e.g., **650***ar*) directed to the video navigation user interface element, the computer system (e.g., **600**) moves the first playhead (e.g., **664***a***1**) from the first playhead location (e.g., location of **66***a***1** in FIG. **6**AR) to a second playhead location (e.g., location of **66***a***1** in FIG. **6**AR) (e.g., direction and amount or speed of movement of the playhead based on a direction amount or speed of movement of the gesture). In some embodiments, in response to (e.g., and/or while) detecting the gesture (e.g., **650***ar*) directed to the video navigation user interface element, the computer system (e.g., **600**) displays a representation (e.g., **660**) of the video at a time that corresponds to the second playhead location while ceasing to display the representation (e.g., **660**) of the video at the time that corresponds to the first playhead location (e.g., as described above in relation to FIGS. **6**AK-**6**AL and FIG. **6**AR). Displaying a representation of the video at a time that corresponds to the second playhead location while ceasing to display the representation of the video at the time that corresponds to the first playhead location in response to a gesture allows the user to see the frame of the video that corresponds to the playhead. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while detecting the gesture (e.g., **650***ar*) directed to the video navigation user interface element (e.g., **664**) (and/or in response to detecting the end of the gesture), the computer system moves a selectable indicator (e.g., **664***a***2**, **664***a***3**) (e.g., the first playhead, a trim indicator (e.g., an indicator that indicates the beginning and/or end of a portion of a modified video that will be saved once editing the video (e.g., an original video, the video before editing) is completed)), including in accordance with a determination that the selectable indicator is not within a threshold distance from the representation of the second time (or the representation of the first time), displaying the selectable indicator (e.g., **664***a***2**, **664***a***3**) moving in accordance with a detected speed of the gesture directed to the video navigation user interface element (e.g., **664**). In some embodiments, while detecting the gesture directed to the video navigation user interface element (and/or in response to detecting the end of the gesture), the computer system (e.g., **600**) moves the selectable indicator, including in accordance with a determination that the selectable indicator is within a threshold distance from the representation of the second time, displaying the selectable indicator (e.g., **664***a***2**, **664***a***3**) at the representation of the second time (e.g., as described above in relation to FIG. **6**AR). In some embodiments, the selectable indicator moves faster as it gets closer to the representation of the second time (e.g., snapping point). Displaying the selectable indicator moving at a second speed that is different from the first speed in accordance with a determination that the selectable indicator is within a threshold distance from the representation of the second time reduces the number of inputs and/or the length of the inputs needed to navigate to a particular location of the video (e.g., change in synthetic depth-of-field effect). Reducing the number of inputs (and/or the length of an input) enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, in accordance with a determination that the selectable indicator (e.g., **664***a***1**, **664***a***2**, **664***a***3**) is within a threshold distance from the representation of the second time, the computer system (e.g., **600**) provides a haptic output that corresponds to snapping to the second time (e.g., a vibration) (e.g., as described above in relation to FIG. **6**AR). In some embodiments, the selectable indicator is the first playhead (e.g., **664***a***1**). In some embodiments, the selectable indicator is a trim indicator (e.g., **664***a***2**, **664***a***3**) (e.g., an indicator that indicates the beginning and/or end of a portion of a modified video that will be set once editing the video (e.g., an original video, the video before editing) is completed) (e.g., a trim indicator is different from the playhead indicator). In some embodiments, the playhead is displayed between two trim indicators. In some embodiments, moving a trim indicator does not include moving a playhead and vice-versa. In some embodiments, in accordance with a determination that the second playhead is within the threshold distance from the representation of the second time, the computer system provides another type of output, such as an audio or a visual output. In some embodiments, in accordance with a determination that the second playhead is not within the threshold distance from the representation of the second time, the computer system does not provide the haptic output (e.g., moves the playhead without providing a haptic output) or the other type of output. Providing the haptic output provides the user with visual feedback concerning when the change in synthetic depth-of-field effect occurred in the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the representation (e.g., **660**) of the video is a representation of a third time (e.g., and/or the first time or the second time) during the first duration that includes a fifth subject (e.g., **632**, **634**, **638**) and a sixth subject (e.g., **632**, **634**, **638**). In some embodiments, the representation of the video is displayed separately from (e.g., not a part of, with space in between or other user interface elements between, displaying in a different portion of the user interface) the video navigation user interface element. In some embodiments, displaying the representation (e.g., **660**) of the video includes displaying a first user interface object (e.g., **672***a*-**672***c*, **678***a*-**678***b*) indicating that the fifth subject is being emphasized by a synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the fifth subject (e.g., **632**, **634**, **638**) in the representation of the video relative to the sixth subject (e.g., **632**, **634**, **638**) (e.g., using one or more techniques as described above in relation to method **700**). Displaying the first user interface object indicating that the fifth subject is being emphasized provides the user with feedback concerning a subject that is emphasized by a synthetic depth-of-field effect relative to other subject(s) in the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the fifth subject (e.g., **632**, **634**, **638**) in a plurality of frames is displayed with a first visual characteristic (e.g., a first amount of blur and/or fading) (e.g., because the first subject is emphasized). In some embodiments, the sixth subject in the plurality of frames is displayed with a second visual characteristic (e.g., second amount of blur and/or fading) that is different from the first visual characteristic (e.g., because the second subject is not emphasized) (e.g., as described above in relation to FIGS. **6**AI-**6**AM). Displaying the fifth subject that is emphasized differently than a sixth subject who is not emphasized provides the user with feedback to distinguish a subject that is emphasized by a synthetic depth-of-field effect relative to other subject(s) in the video. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while displaying the representation (e.g., **660**) of the video and the first user interface object, the computer system detects a gesture (e.g., **650***ai*, **650***a***1**) that corresponds to selection of the sixth subject (e.g., **632**, **634**, **638**) in the representation (e.g., **660**) of the video (e.g., using one or more techniques as described above in relation to methods **800**). In some embodiments, in response to detecting the gesture (e.g., **650***ai*, **650***a***1**) (e.g., a tap gesture, a press-and-hold gesture, a mouse click) that corresponds to selection of the sixth subject (e.g., **632**, **634**, **638**) in the representation (e.g., **660**) of the video, the computer system changes the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the sixth subject in the representation of the video relative to the fifth subject (e.g., using one or more techniques as described above in relation to methods **800**) (e.g., as described above in relation to FIGS. **6**AI-**6**AM). Changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the fifth subject in the plurality of frames relative to the sixth subject in response to detecting a detecting the gesture that corresponds to selection of the second subject in the representation of the video provides the user with control over the system by allowing the user to control how a synthetic depth-of-field effect is applied to a video. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, in response to detecting the gesture (e.g., **650***ai*, **650***a***1**) (e.g., a tap gesture, a press-and-hold gesture) that corresponds to selection of the sixth subject in the representation of the video, the computer system displays a seventh graphical user interface object (e.g., **672***a*-**672***c*, **678***a*-**678***b*) indicating that the sixth subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the sixth subject (e.g., **632**, **634**, **638**) in the representation of the video relative to the fifth subject (e.g., **632**, **634**, **638**) (e.g., using one or more techniques as described above in relation to methods **700** and **800**). Displaying a seventh graphical user interface object indicating that the sixth subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the sixth subject in the representation of the video relative to the fifth subject in response to detecting a detecting the gesture that corresponds to selection of the second subject in the representation of the video provides the user with control over the system by allowing the user to control how a synthetic depth-of-field effect is applied to a video. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the video navigation user interface element (e.g., **664**) for navigating through the video that includes: at a seventh location on the video navigation user interface element, the seventh graphical user interface object (e.g., **668***c*, **688***e*, **688***h*, **688***i*, **688***j*, **688***k*, and/or **688***m*); at an eighth location on the video navigation user interface element, an eighth graphical object (e.g., **686***d* and/or **686***f*) indicating that a synthetic depth-of-field change (e.g., a user-specified change and/or an automatic change) has occurred at an eighth time in the video (and, in some embodiments, the seventh location is before the eighth location on the video navigation user interface element); and a portion that is between the seventh location and the eighth location (e.g., a portion of **664***b*). In some embodiments, before detecting the gesture that corresponds to selection of the sixth subject in the representation of the video, the portion of the video navigation user interface element that is between the seventh location and the eighth location is displayed in a first visual state (e.g., a portion of the video navigation user interface element that extends from the seventh location to the eighth location and/or a portion of the video navigation user interface element that extends from the seventh graphic object to the eighth graphical object) (e.g., as shown above in relation to FIG. **6**BB). In some embodiments, in response to detecting the gesture (e.g., **650***bb***2**) that corresponds to selection of the sixth subject in the representation of the video, the computer system displays an animation of the portion of the video navigation user interface element that is between the seventh location and the eighth location changing from the first visual state to a second visual state (e.g., **688***c***1**, **688***e***1**, **688***h***1**, **688***i***1**, **688***k***1**, and/or **688***m***1**) that is different from the first visual state (e.g., as discussed and shown in relation to FIG. **6**BC). In some embodiments, in response to detecting the gesture that corresponds to selection of the sixth subject in the representation of the video, a portion of the video navigation user interface element that is before the seventh location continues to be displayed in the same state that it was displayed in before detecting the gesture that corresponds to selection of the sixth subject in the representation of the video. In some embodiments, in response to detecting the gesture that corresponds to selection of the sixth subject in the representation of the video, a portion of the video navigation user interface element that is after the eighth location continues to be displayed in the same state that it was displayed in before detecting the gesture that corresponds to selection of the sixth subject in the representation of the video. Displaying an animation of the portion of the video navigation user interface element that is between the seventh location and the eighth location changing from the first visual state to a second visual state that is different from the first visual state in response to detecting the gesture that corresponds to selection of the sixth subject in the representation of the video provides visual feedback that informs a user about what portions of the video navigation user interface element have been altered based on the change to the synthetic depth-of-field effect that corresponds to the graphical object displayed at the seventh location, which provides improved visual feedback.

In some embodiments, in response to detecting the gesture (e.g., **650***ai*, **650***a***1**) (e.g., a tap gesture, a press-and-hold gesture) that corresponds to selection of the sixth subject in the representation of the video, the computer system displays, in the video navigation user interface element, a second representation (e.g., **688***h*, **688***i*) (e.g., a thumbnail representation) of the third time. In some embodiments, the second representation (e.g., **688***h*, **688***i*) of the third time represents a user-specified change in subject emphasis (e.g., where the second representation of the third time was not previously displayed before detecting the gesture that corresponds to the second subject in the representation of the video). In some embodiments, in response to detecting the gesture (e.g., a tap gesture, a press-and-hold gesture) that corresponds to selection of the second subject in the representation of the video, the computer system displays a first graphical object that is displayed at the fifth location in the video navigation user interface element to indicate that a user-specified change has occurred at the third time in the video. In some embodiments, before detecting the gesture, a third representation of the third time (and/or a second graphical object that is displayed at the fifth location in the video navigation user interface element to indicate that an automatic change has occurred at the third time in the video) that represents an automatic change in subject emphasis is displayed and, in response to detecting the gesture that corresponds to selection of the second subject in the representation of the video, the computer system ceases to display the third representation of the third time (and/or a second graphical object that is displayed at the fifth location in the video navigation user interface element) and/or replaces the third representation of the third time with the second representation of the third time (and/or the first graphical object that is displayed at the fifth location in the video navigation user interface element). Displaying, in the video navigation user interface element, the second representation of the third time, where the second representation of the third time represents a user-specified change in subject emphasis provides the user with feedback that a user-specified change has occurred at the third time in response to detecting the gesture that corresponds to selection of the second subject. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the representation (e.g., **660**) of the third time includes a seventh subject. In some embodiments, while displaying the representation (e.g., **660**) of the video and the first user interface object (e.g., **672***a*-**672***c*), the computer system (e.g., **600**) detects a gesture (e.g., **650***ai*, **650***a***1**) that corresponds to selection of the seventh subject in the representation of the video (e.g., using one or more techniques as described above in relation to method **800**). In some embodiments, in response to detecting the gesture (e.g., **650***ai*, **650***a***1**) (e.g., a tap gesture, a press-and-hold gesture) that corresponds to selection of the seventh subject in the representation of the video, the computer system (e.g., **600**) changes the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the seventh subject (e.g., **632**, **634**, **638**) in the representation of the video relative to the fifth subject (and the fifth subject and/or sixth subject) (e.g., using one or more techniques as described above in relation to method **800**)). In some embodiments, in response to detecting the gesture (e.g., **650***ai*, **650***a***1**) (e.g., a tap gesture, a press-and-hold gesture) that corresponds to selection of the seventh subject (e.g., **632**, **634**, **638**) in the representation (e.g., **660**) of the video, the computer system displays a third user interface object indicating that the seventh subject is being emphasized by the changed synthetic depth-of-field effect that alters the visual information captured by the one or more cameras to emphasize the seventh subject in the representation of the video relative to the fifth subject (and the fifth subject and/or sixth subject) (e.g., using one or more techniques as described above in relation to method **800**) (e.g., as described above in relation to FIGS. **6**AI-**6**AM). Changing the synthetic depth-of-field effect to alter the visual information captured by the one or more cameras to emphasize the seventh subject in the representation of the video relative to the fifth subject provides the user with control over the system by allowing the user to control how a synthetic depth-of-field effect is applied to a video. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the video navigation user interface element (e.g., **664**) for navigating through the video that includes, at a third location on the video navigation user interface element (e.g., **664**) (e.g., above, below, and/or on a first frame of the video), a third graphical user interface object (e.g., **688***c*, **688***e*, **688***h*, **688***i*) indicating that the user-specified change occurred (e.g., concerning which subjects have been emphasized) at the second time in the video (or indicating that the automatic change occurred (e.g., concerning which subjects have been emphasized) at the second time in (during playback of, during capture of) the video). In some embodiments, while displaying the third graphical user interface object (e.g., **688***c*, **688***e*, **688***h*, **688***i*), the computer system (e.g., **600**) detects a gesture (e.g., a tap gesture) directed to the third graphical user interface object (e.g., **688***c*, **688***e*, **688***h*, **688***i*). In some embodiments, in response to detecting the gesture directed to the third graphical user interface object (e.g., **688***c*, **688***e*, **688***h*, **688***i*), computer system displays an option (e.g., **688***h***1**) (e.g., a selectable option) to remove the user-specified change that occurred at the second time in the video. In some embodiments, in response to detecting a gesture directed to the option, the computer system removes the user-specified change that occurred at the second time in the video, ceases to display the third graphical user interface object (and, in some embodiments, displays another graphic user interface object (e.g., that is representative of automatic change and/or system-generate change), ceases to display the representation of the second time, replaces display of the representation of the second time with display of a different representation of the second time that does not include a subject that is emphasized relative to another subject, replaces display of the representation of the second time with display of a different representation of the second time that includes the synthetic depth-of-field effect that has a different type of tracking than the type of track to which the user-specified change corresponded. Providing an option to remove the user-specified change that occurred at the second time in the video in response to detecting the gesture directed to the third graphical user interface object provides the user with control over the system by allowing the user to remove a synthetic depth-of-field effect that has been applied. Providing additional control of the system without cluttering the UI with additional displayed controls enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the video navigation user interface element (e.g., **664**) for navigating through the video includes, at a fourth location on the video navigation user interface element (e.g., above, below, and/or on a first frame of the video), a fourth graphical user interface object (e.g., **688***c*, **688***e*, **688***h*, **688***i*) indicating that the user-specified change occurred (e.g., concerning which subjects have been emphasized) at the second time in the video (or indicating that the automatic change occurred (e.g., concerning which subjects have been emphasized) at the second time in (during playback of, during capture of) the video). In some embodiments, after the representation of the second time, a plurality of representations (a plurality of representations, where each representation represents a time in the video that is after the second time) are displayed that include the one subject that is emphasized relative to one or more elements in the video (e.g., **664***a*) (e.g., based on the user-specified change (e.g., that occurred at the second time)). In some embodiments, none or the plurality of representations are displayed adjacent to or on to a graphical user interface object indication that a change has occurred at the respective times of each of the respective plurality of representations. Displaying the plurality of representations displayed that include the one subject that is emphasized relative to one or more elements in the video after the representation of the second time provides the user with feedback that a user-specified change has occurred at the third time and has changed frames of the video that are displayed the third time. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the representation of the video is a third representation of the second time. In some embodiments, the third representation of the second time has, in accordance with a determination that the user-specified change is a first type (e.g., a temporary emphasis change) (e.g., using one or more techniques as described above in relation to method **800**, a change that occurs in response to detecting a single-tap gesture as described above in relation to method **80**)) of user-specified change, a third visual appearance (e.g., color, highlighting, text, shape) e.g., a bracket without a shape (e.g., circle) inside of the bracket) (e.g., as described above in relation to FIGS. **6**AI-**6**AL). In some embodiments, the third representation of the second time has, in accordance with a determination that the user-specified change is a second type of user-specified change (e.g., a temporary emphasis change) (e.g., using one or more techniques as described above in relation to method **800**, a change that occurs in response to detecting a multi-tap gesture as described above in relation to method **800**) that is different from the first type of user-specified change, a fourth visual appearance (e.g., color, highlighting, text, shape) e.g., a bracket with a shape (e.g., circle) inside of the bracket) that is different from the third visual appearance (e.g., as described above in relation to FIGS. **6**AI-**6**AL). Displaying the third representation of the second time differently based on the type of user-specified change that occurred provides the user with feedback and enabled the user to distinguish the particular type of user-specified change that occurred. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, while displaying the video navigation user interface element (e.g., **664**), the computer system (e.g., **600**) detects a gesture (e.g., **650***ak*) directed to a sixth location on the video navigation user interface element (e.g., **664**). In some embodiments, in response to detecting the gesture (e.g., **650***ak*) directed to the sixth location on the video navigation user interface element (e.g., detecting a gesture directed to the representation of the first time, the representation of the second time or a graphical user interface object indicating that the user-specified change occurred a particular time or an automatic change has occurred at a particular time), the computer system displays a progress indicator that represents a time (e.g., **664***c*) in a playback of the video that corresponds (e.g., that is represented by) to the sixth location. Displaying a progress indicator that represents a time in a playback of the video that corresponds to the sixth location provides the user with feedback about the time in the video that the user has selected. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, the user interface includes a selectable user interface object for controlling a video editing mode (e.g., a cinematic video editing mode) (e.g., **662***c*). In some embodiments, the selectable user interface object for controlling the video editing mode is displayed with a status indication that indicates that the video editing mode is in an active state (e.g., **662** in FIG. **6**AP). In some embodiments, the video navigation user interface element (e.g., **664**) for navigating through the video that includes, at a seventh location on the video navigation user interface element (e.g., **664**) (e.g., above, below, and/or on a first frame of the video), a sixth graphical user interface object (e.g., **688***c*, **688***e*, **688***h*, and/or **688***i*) indicating that the user-specified change occurred (e.g., concerning which subjects have been emphasized) at the second time in the video (or indicating that the automatic change occurred (e.g., concerning which subjects have been emphasized) at the second time in (during playback of, during capture of) the video) (e.g., not displayed with a particular color (e.g., grey)). In some embodiments, the sixth graphical user interface object is displayed in a selectable state (e.g., **688***c*, **688***e*, **688***h*, and/or **688***i*) (e.g., where selection of the fifth graphical user interface object would cause the computer system to perform an operation). In some embodiments, while displaying the selectable user interface object for controlling the video editing mode with the status indication that indicates that the video editing mode is in the active state (e.g., **662***c* in FIG. **6**AP), the computer system (e.g., **600**) detects a gesture (e.g., **650***ap***1**) directed to the selectable user interface object for controlling the video editing mode (e.g., **662***c*). In some embodiments, in response to detecting the gesture (e.g., **650***ap***1**) directed to the selectable user interface object (e.g., **662***c*) for controlling the video editing mode, forgoing display of the sixth graphical user interface object in the selectable state (e.g., as discussed above in relation to FIGS. **6**AP-**6**AQ) (e.g., displaying the sixth graphical user interface object in a non-selectable state or ceasing to display the sixth graphical use interface object) (e.g., where selection of the fifth graphical user interface object would not cause the computer system to perform an operation) (e.g., displayed with a particular color (e.g., grey)) (e.g., where the non-selectable state is different from the selectable state). Displaying the sixth graphical user interface object in a non-selectable state in response to detecting the gesture directed to the selectable user interface object for controlling the video editing mode provides the user with feedback that the graphical user interface object indicating that the user-specified change occurred is not available and/or the cinematic video editing mode has been disabled. Providing improved visual feedback to the user enhances the operability of the system and makes the user-system interface more efficient (e.g., by helping the user to provide proper inputs and reducing user mistakes when operating/interacting with the system) which, additionally, reduces power usage and improves battery life of the system by enabling the user to use the system more quickly and efficiently.

In some embodiments, wherein, before detecting the gesture directed to the selectable user interface object for controlling the video editing mode, the video navigation user interface element for navigating through the video is displayed with a first amount of visual emphasis (e.g., as discussed above in relation to FIG. **6**AP). In some embodiments, in response to detecting the gesture (e.g., **650***ap***1**) directed to the selectable user interface object for controlling the video editing mode, the computer system displays the video navigation user interface element for controlling the video editing mode with a second amount of visual emphasis (e.g., as discussed above in relation to FIG. **6**AQ) that is less than the first amount of visual emphasis (e.g., as discussed above in relation to FIG. **6**AP). In some embodiments, the video navigation user interface element is visually de-emphasized (e.g., more blurred, smaller, grayed-out, more translucent, and/or less zoomed in) when computer to the video navigation user interface element with the first amount of visual emphasis. Displaying the video navigation user interface element with the second amount of visual emphasis that is less than the first amount of visual emphasis as a part of displaying the option to remove the second subject emphasis change that occurs at the second time in response to detecting the input directed to the first graphical user interface object provides visual feedback to the user regarding the subject emphasis and/or the graphical user interface object that will be removed (e.g., to avoid unintended removal), which provides improved visual feedback.

Note that details of the processes described above with respect to method **900** (e.g., FIG. **9**) are also applicable in an analogous manner to the methods described above and/or below. For example, methods **700**, **800**, **1100**, and/or **1300** optionally includes one or more of the characteristics of the various methods described above with reference to method **900**. For example, the method described below in method **900** can be used to display media in a media editing user interface after the media is captured using one or more techniques described in relation to method **700**. For brevity, these details are not repeated above.

FIGS. **10**A-**10**I illustrate exemplary user interfaces for managing media capture using a computer system in accordance with some embodiments. The user interfaces in these figures are used to illustrate the processes described below, including the processes in FIG. **11**.

FIG. **10**A illustrates computer system **600** having front-side **600***a* and back-side **600***b*. Cameras **1080***a*-**1080***c* are positioned on back-side **600***b* of computer system **600**. Cameras **1080***a*-**1080***c* are different from each other, where cameras **1080***a*-**1080***c* have different hardware specifications (e.g., camera sensor size, shape, and/or placement, camera lens shape, size, and/or placement, and/or aperture size, shape, and/or placement). Because the hardware of cameras **1080***a*-**1080***c* is different, each of cameras **1080***a*-**1080***c* have a different set of image capture parameters, such as a minimum focal distance, a maximum and/or minimum field-of-view, a focal length, an aperture size range, and/or a maximum/minimum optical zoom.

Table **1090** (e.g., of FIG. **10**A) is provided to show a comparison between a subset of exemplary image capture parameters (e.g., minimum focal distance and maximum field-of-view) for each respective camera (e.g., **1080***a*-**1080***c*) that will be used in the exemplary described in relation to FIGS. **10**A-**10**I. As shown in FIG. **10**A, camera **1080***a* (e.g., "CAM **1**") has a set of images capture parameters that are displayed in parameter column **1090***a*, camera **1080***b* (e.g., "CAM **2**") has a set of images capture parameters that are displayed in parameter column **1090***b*, and camera **1080***c* (e.g., "CAM **3**") has a set of images capture parameters that are displayed in parameter column **1090***c*. As shown in FIG. **10**A, camera **1080***a* has a minimum focal distance (e.g., "A") that is less than the minimum focal distance (e.g., "B") of camera **1080***b* ("CAM **2**"). Moreover, camera **1080***b* has a minimum focal distance (e.g., "B") that is less than the minimum focal distance (e.g., "C") of camera **1080***c* ("CAM **3**"). Cameras that have a shorter minimum focal distance are able to focus on objects that are closer to the camera than cameras that have longer minimum focal distance. For example, graphical illustration **1068** is provided and shows the position of one or more cameras of computer system **600** relative to flower **1068***a* (e.g., closer to the camera, on the left) and tree **1068***b* (e.g., further away from the camera, on the right) in an environment. Distance marker **1072***a* is an exemplary representation of the minimum focal distance of camera **1080***a*, distance marker **1072***b* is an exemplary representation of the minimum focal distance of camera **1080***b*, and distance marker **1072***c* an exemplary representation of the minimum focal distance of camera **1080***c*. Each distance marker denotes an example of what objects (e.g., flower **1068***a*, tree **1068***b*) that a respective camera can focus on while computer system **600** is at a particular location in the environment. A respective camera can only focus on objects that are to the right of a respective distance marker (e.g., no closer to the camera than the distance of the respective distance marker) while computer system **600** is at a particular location in the environment. At FIG. **10**A, camera **1080***a* is able to focus on flower **1068***a* and tree **1068***b* because distance marker **1072***a* is positioned before flower **1068***a* (e.g., and/or flower **1068***a* and tree **1060***b* is further away from camera **1080***a* than the minimum focal distance of camera **1080***a*). Cameras **1080***b* and **1080***c* are not able to focus on flower **1068***a* but are able to focus on tree **1068***b* because distance markers **1072***b* and **1072***c* are positioned between flower **1068***a* (e.g., and/or flower **1068***a* is closer to and tree **1060***b* is further away from cameras **1080***b* and **1080***c* than the minimum focal distances of cameras **1080***b* and **1080***c*). In some embodiments, the minimum focal distance of camera **1080***c* is such that it is not able to focus on flower **1068***a* and the tree **1068***b* (e.g., the portion of the tree that is closest to computer system **600**).

In FIGS. **10**A-**10**I, camera **1080***a* has the ability to focus on objects that are closer to computer system **600** than camera **1080***b*, and camera **1080***b* has the ability to focus on objects that are closer to computer system **600** than camera **1080***c* (e.g., given that the cameras are all positioned on back-side **600***b*). In other words, computer system **600** is able to display a representation of an object and/or capture media corresponding to the object that is in focus using camera **1080***a* when the object is within the minimum focal distance of camera **1080***a* but outside of the minimum focal distance of camera **1080***b* (e.g., and the same relationship would apply to cameras **1080***b* versus camera **1080***c*). Thus, computer system **600** will use camera **1080***a* when focusing on an object and/or capture an object that is in focus using camera **1080***a* when the object is within the minimum focal distance of camera **1080***a* but outside of the minimum focal distance of camera **1080***b*. However, using the camera with the minimum focal distance is not optimal in some situations where an object is within the minimum focal distance of multiple cameras, such as cameras **1080***a* and **1080***b*. In some situations, it can be optimal for computer system **600** to use the camera with the greater minimum focal distance (e.g., **1080***b*) when focusing on an object that is within the minimum focal distances of cameras **1080***a* and **1080***b*. In some embodiments, this is because computer system **600** has to apply more digital zoom (e.g., digital and/or computer-generated magnification) (e.g., rather than an optical zoom that uses one or more cameras lenses to magnify) to display a representation of an object and/or capture media corresponding to the object at a particular zoom level when using a camera with a shorter minimum focal distance, but larger field-of-view, than when using a camera with a longer minimum focal distance, and narrower field-of-view. In some embodiments, applying more digital zoom leads to more distortion and/or less fidelity in the displayed representation of the object and/or the captured media corresponding to the object. In some embodiments, camera **1080***a* has a minimum focal distance that is a distance between 0-6 cm. In some embodiments, camera **1080***b* has a minimum focal distance that is a distance between 7-12 cm. In some embodiments, camera **1080***b* has a minimum focal distance that is a distance between 12-15 cm. In some embodiments, one or more of the minimum focal distances of cameras **1080***a*-**1080***c* is a range of distance and/or a distance that is another distance than the examples provided above.

As shown in FIG. **10**A, Table **1080** also provides a maximum field-of-view parameter for each respective camera. Camera **1080***a* has a maximum field-of-view (e.g., "X") that is greater than the maximum field-of-view (e.g., "Y") of camera **1080***b*, and camera **1080***b* has a maximum field-of-view that is greater than the maximum field-of-view (e.g., "Z") of camera **1080***c*. At FIG. **10**A, field-of-view indicators **1070***a*-**1070***c* are provided to show the relative field-of-views for each camera. For example, field-of-view indicator **1070***a* is the widest field-of-view indicator to indicate that camera **1080***a* has the largest field-of-view, field-of-view indicator **1070***c* is the smallest field-of-view indicator to indicate that camera **1080***c* has the smallest field-of-view, and field-of-view indicator **1070***b* is provided to show that camera **1080***b* has a field-of-view that is between the field-of-view of cameras **1080***a* and **1080***c*. In some embodiments, camera **1080***a* is an ultra-wide-angle camera (e.g., a camera that has an ultra-wide field-of-view), camera **1080***b* is a wide-angle camera (e.g., includes a camera sensor that has a wide field-of-view and/or a field-of-view that is narrower than the ultra-wide field-of-view), and camera **1080***c* is a telephoto camera (e.g., includes a camera sensor that has a field-of-view that is narrower than the wide field-of-view).

As illustrated in FIG. **10**A, computer system **600**, via the display, displays a camera user interface that includes indicator region **602**, camera display region **604**, and control region **606**. Indicator region **602** includes flash indicator **602***a*, modes-to-settings indicator **602***b*, and animated image indicator **602***c*, which are displayed using one or more techniques as described above in relation to FIG. **6**A. Control region **606** includes camera mode controls **620** including camera mode controls **620**, shutter control **610**, camera switcher control **614**, and a representation of media collection **612**, which are displayed using one or more techniques as described above in relation to FIG. **6**A. As illustrated in FIG. **10**A, camera display region **604** includes live preview **630** and zoom controls **622**. Zoom controls **622** include 0.5× zoom control **622***a,* 1× zoom control **622***b*, and 2× zoom control **622***c*. As illustrated in FIG. **10**A, 1× zoom control **622***b* is enlarged compared to the other zoom controls, which indicates that 1× zoom control **622***b* is selected and that computer system **600** is displaying live preview **630** at a "1×" zoom level. While live preview **630** is displayed at the 1× zoom level, computer system **600** uses camera **1080***b* (e.g., as indicated by use indicator **1092** being located at camera **1080***b* in FIG. **10**A), which is presented on back-side **600***b* of computer system **600** to display the portion of live preview **630** that is in camera display region **604**. At FIG. **10**A, computer system **600** is focused on tree **1068***b* (e.g., denoted by focus indicator **1078**). Thus, computer system **600** has the option of choosing camera **1080***a* and/or **1080***b* (e.g., based on the minimum focal distances, as illustrated by distance markers **1072***a* and **1072***b* being positioned before the portion of tree **1068***b* that is closet to computer system **600**) to display live preview **630**. Here, as alluded to above, computer system **600** uses camera **1080***b* because less digital zoom is applied to display live preview **630** (e.g., that includes tree representation **1038***b*) at the 1× zoom level while focusing on tree **1068***b* than the digital zoom that would need to be applied to display live preview **630** at the 1× zoom level using camera **1080***a*. In some embodiments, no digital zoom is required when using camera **1080***b* to display live preview **630** at the 1× zoom level. In some embodiments, computer system **600** uses camera **1080***a*, **1080***b*, and/or **1080***c* to display the portions of live preview **630** that are in indicator region **602** and/or control region **606**, while computer system **600** uses camera **1080***b* to display the portion of live preview **630** that is in camera display region **604**. At FIG. **10**A, computer system **600** is moved downward to a new position, such that flower **1068***a* is, at least partially, within the field-of-view of camera **1080***a*-**1080***c*.

At FIG. **10**B, while in the new position, computer system **600** detects a change in distance between cameras **1080***a*-**1080***c* (e.g., at least one) and the focal point (e.g., a specific location of tree **1068***b*), due to the downward movement. In response to detecting the change in distance, a determination is made that the changed distance is not less than a predetermined distance (e.g., closer than the minimum focal distance of the camera (e.g., camera **1080***b*) that computer system **600** is using to display live preview **630** in FIG. **10**A and/or a distance that is based on a minimum focal distance). As illustrated in FIG. **10**B, because the determination is made that the changed distance is not less than the predetermined distance, computer system **600** continues to display the portion of live preview **630** in camera display region **604** using camera **1080***b* (e.g., as indicated by use indicator **1092** being located at camera **1080***b* in FIG. **10**B). At FIG. **10**B, computer system **600** detects tap input **1050***b* on (e.g., at a location that corresponds to) flower representation **1038***a* in live preview **630**.

As illustrated in FIG. **10**C, in response to detecting tap input **1050***b*, computer system **600** changes the focal point of cameras **1080***a*-**1080***c* (e.g., at least one of the cameras). At FIG. **10**C, computer system **600** changes the focal point of cameras **1080***a*-**1080***c*, such that cameras **1080***a*-**1080***c* are configured to focus on flower **1068***a* instead of tree **1068***b* in the environment. At FIG. **10**C, the change to the focal point is indicated by flower representation **1038***a* being bolded (e.g., the object in focus) and tree representation **1038***b* being dotted (e.g., the object out of focus) in live preview **630**, which is different from tree representation **1038***b* being bolded and flower representation **1038***a* being dotted in FIG. **10**B. In addition, focus indicator **1078** is displayed as being positioned around flower **1068***a* to indicate that cameras **1068***a*-**1068***c* are configured to focus on flower **1068***a* instead of tree **1068***b* in the environment. After changing the focal point of cameras **1080***a*-**1080***c*, computer system **600** detects a change in distance between cameras **1080***a*-**1080***c* and the focal point of cameras **1080***a*-**1080***c* due to the new focal point being selected. At FIG. **10**C, distance D**2** between cameras **1080***a*-**1080***c* and tree **1068***b* is longer than distance D**1** between cameras **1080***a*-**1080***c* and flower **1068***a*. Thus, at FIG. **10**C, computer system **600** detects a decrease in distance between cameras **1080***a*-**1080***c* and the focal point. In response to detecting the decreased distance between cameras **1080***a*-**108***c* and the focal point, a determination is made that the decreased distance between cameras **1080***a*-**1080***c* and the focal point is less than a predetermined distance (e.g., a distance that is based on the minimum focal distance of the camera (e.g., camera **1080***b*) that was being used to the captured the portion of live preview **630** before the decreased distance was detected) (e.g., cameras **1080***a*-**1080***c* is closer to the focal point than the predetermined distance).

At FIG. **10**C, because the determination is made that the decreased distance between cameras **1080***a*-**1080***c* and the focal point is less than the predetermined distance, computer system **600** switches (e.g., transitions) from using camera **1080***b* to using camera **1080***a* (e.g., as indicated by use indicator **1092** being located at camera **1080***a* in FIG. **10**C) to display the portion of live preview **630** in camera display region **604**. As indicated above, camera **1080***a* has a shorter minimum focal distance than camera **1080***b*. Thus, at FIG. **10**C, computer system **600** automatically switches to using camera **1080***a* because the distance between cameras **1080***a*-**1080***c* and the focal point is shorter than the minimum focal distance of camera **1080***b*. At FIG. **10**C, computer system **600** applies a digital zoom to continue to display live preview **630** at the 1× zoom level (e.g., as indicated by 1× zoom control **622***b* being selected). In some embodiments, as a part of transitioning from using camera **1080***b* to using camera **1080***a* to display the portion of live preview **630** in camera display region **604**, computer system **600** updates and/or changes the appearance of live preview **630**. In some embodiments, because camera **1080***a* has a different field-of-view than camera **1080***b* (e.g., due to the different physical positions of cameras **1080***a* and **1080***b* on back-side **600***b*), computer system **600** translates and/or moves the scene of live preview **630** relative to the display of computer system **600** when updating live preview **630** (e.g., to compensate for a change in angle due to the different physical positions of cameras **1080***a* and **1080***b* on back-side **600***b*). In some embodiments, computer system **600** translates and/or moves the scene of live preview **630** relative to the display of computer system **600** in order to reduce the amount of shifting in the center of live preview **630** and/or at the focal point (e.g., flower **1068***a*). In some embodiments, after computer system **600** translates and/or moves live preview **630** relative to the display of computer system **600**, computer system **600** increases the amount of shifting that occurs to the scene of live preview **630** in other areas of the display (e.g., the region near the boundary of camera display region **604** and indicator region **602** and/or near the boundary of camera display region **604** and control region **606**).

Although FIGS. **10**B-**10**C illustrate an exemplary embodiment where computer system changes the focal point of cameras **1080***a*-**1080***c* from tree **1068***b* to flower **1068***a* in response to an input (e.g., **1050***b*), computer system **600** can automatically change the focal point of cameras **1080***a*-**1080***c* from tree **1068***b* to flower **1068***a* (e.g., without receiving an input; based on one or more autofocus criteria). Thus, in some embodiments, computer system **600** does not detect tap input **1050***b* and changes the focal point of cameras **1080***a*-**1080***c* from tree **1068***b* to flower **1068***a*. In some embodiments, computer system **600** automatically changes the focal point of cameras **1080***a*-**1080***c* from tree **1068***b* to flower **1068***a* based on the movement of computer system **600**. In some embodiments, computer system **600** automatically changes the focal point of cameras **1080***a*-**1080***c* from tree **1068***b* to flower **1068***a* based on flower **1068***a* occupying a larger portion of the field-of-view of cameras **1080***a*-**1080***c* than tree **1068***b* at a particular instance in time (e.g., at FIG. **10**B).

FIGS. **10**D-**10**E are alternative scenarios that can occur after computer system **600** displays the camera user interface of FIG. **10**C. FIG. **10**D is a scenario where computer system **600** displays live preview **630** at different zoom levels (0.5× zoom level) in response to detecting an input one of zoom control **622**. FIG. **10**D-**10**E is a scenario where computer system **600** switches to display live preview **630** to use a different camera when computer system **600** is moved to a different location in the environment.

At FIG. **10**C, computer system detects tap input **1050***c* on 1× zoom control **622***b*. As illustrated in FIG. **10**D, in response to detecting tap input **1050***c*, computer system **600** displays live preview **630** at a 0.5× zoom level (e.g., as indicated by zoom control **622***a* being enlarged and bolded). While displaying live preview **630** at the 0.5× zoom level, computer system **600** continues to use camera **1080***a* (e.g., as indicated by use indicator **1092** being located at camera **1080***a* in FIG. **10**D). To display live preview **630** at the 0.5× zoom level using use camera **1080***a*, computer system **600** applies less digital zoom (e.g., or no digital zoom) than computer system **600** applied to display live preview **630** at the 1× zoom level in FIG. **10**C. In some embodiments, at FIG. **10**D, computer system **600** displays the content from the entire field-of-view of camera **1080***a* as live preview **630** in camera display region **604** and there is no content from the field-of-view of camera **1080***a* displayed as live preview **630** in indicator region **602** and/or control region **606** in FIG. **10**D. In some embodiments, at FIG. **10**C, computer system **600** displays the content from only a portion of the field-of-view of camera **1080***a* in camera display region **604**, so there is content from the field-of-view of camera **1080***a* displayed as live preview **630** in indicator region **602** and/or control region **606** in FIG. **10**C.

Alternatively, at FIG. **10**C, computer system **600** is moved to a different position in the environment (e.g., moved further away from flower **1068***a* and tree **1068***b*), as shown in FIG. **10**E. At FIG. **10**E, computer system **600** detects that the distance between cameras **1080***a*-**1080***c* and the focal point (e.g., **1068***a*) has increased. In response to detecting that the increased distance, computer system **600** detects that the increased distance between cameras **1080***a*-**1080***c* and the focal point is not less than the predetermined distance (e.g., a predetermined distance that is based on camera **1080***b* (e.g., the minimum focal distance of camera **1080***b*). At FIG. **10**E, because the increased distance between cameras **1080***a*-**1080***c* and the focal point is not less than the predetermined distance, computer system **600** switches from using camera **1080***a* to using camera **1080***b* (e.g., as indicated by use indicator **1092** being located at camera **1080***a* in FIG. **10**E) to display the portion of live preview **630** in camera display region **604**. Here, computer system **600** switches from using camera **1080***a* to using camera **1080***b* in response to a change in distance that occurred due to movement of computer system **600** while the focal point was maintained on the same object (e.g., **1078** surrounding flower **1068***a* in FIG. **10**E). In some embodiments, computer system **600** switches from using camera **1080***a* to using camera **1080***b* to display the portion of live preview **630** in camera display region **604** using similar techniques and for similar reasons as those discussed above in relation to FIGS. **10**A-**10**C (e.g., because doing so would reduce the use of digital zoom).

FIGS. **10**F-**10**I illustrate an exemplary embodiment, where computer system **600** is moved closer to a focal point (e.g., tree **1068***b*). As illustrated in FIG. **10**F, computer system **600** is using camera **1080***c* to display the portion of live preview **630** in camera display region **604**. As illustrated in FIG. **10**F, live preview **630** is displayed at the 2× zoom level (e.g., as indicated by 2× zoom control **622***c*). At FIG. **10**F, computer system **600** detects tap input **1050***f* on shutter control **610**. At FIG. **10**F, a determination is made that the current distance (e.g., D**2** in FIG. **10**F) between the focal point and cameras **1080***a*-**1080***c* is greater than a first predetermined threshold distance (e.g., based on the minimum focal distance of camera **1080***c*). At FIG. **10**F, because the determination is made that the current distance between the focal point and cameras **1080***a*-**1080***c* is greater than the first predetermined threshold distance, computer system **600** captures media representative of live preview **630** using camera **1080***c*.

As illustrated in FIG. **10**G, computer system **600** updates media collection **612** to include a representation of media that was captured in response to detecting tap input **1050***f*. In some embodiments, because a determination is made that the current distance between the focal point and cameras **1080***a*-**1080***c* is less than the first predetermined threshold distance, computer system **600** initiates capture of media representative of live preview **630** using another camera, such as camera **1080***b*. Thus, in some embodiments, computer system **600** automatically selects a camera to capture media using similar techniques to those discussed above in relation to automatically selecting a camera to display live preview **630**.

As illustrated in FIG. **10**G, computer system **600** has moved closer to the focal point (e.g., tree **1068***b*). At FIG. **10**G, in response to detecting a change in distance between the focal point and cameras **1080***a*-**1080***c*, a determination is made that the current distance (e.g., D**3** in FIG. **10**G) between the focal point and cameras **1080***a*-**1080***c* is not greater than the first predetermined threshold distance (e.g., based on the minimum focal distance of camera **1080***c*). Based on this determination, computer system **600** switches from using camera **1080***c* to using camera **1080***b* (e.g., as indicated by use indicator **1092** being located at camera **1080***b* in FIG. **10**G) to display the portion of live preview **630** in camera display region **604** (e.g., using similar techniques and for similar reasons as those discussed above in relation to FIGS. **10**A-**10**C). At FIG. **10**G, computer system **600** detects tap input **1050***g* on shutter control **610**. At FIG. **10**G, a determination is made that the current distance (e.g., D**3** in FIG. **10**G) between the focal point and cameras **1080***a*-**1080***c* is not greater than the first predetermined threshold distance (e.g., based on the minimum focal distance of camera **1080***c*). At FIG. **10**G, because the determination is made that the current distance between the focal point and cameras **1080***a*-**1080***c* is not greater than the first predetermined threshold distance, computer system **600** captures media representative of live preview **630** using camera **1080***b*.

As illustrated in FIG. **10**H, computer system **600** updates media collection **612** to include a representation of media that was captured in response to detecting tap input **1050***g*. As illustrated in FIG. **10**H, computer system **600** has moved closer to the focal point (e.g., tree **1068***b*). At FIG. **10**H, in response to detecting a change in distance between the focal point and cameras **1080***a*-**1080***c*, a determination is made that the current distance (e.g., D**4** in FIG. **10**H) between the focal point and cameras **1080***a*-**1080***c* is not greater than a second predetermined threshold distance (e.g., based on the minimum focal distance of camera **1080***b*, a smaller threshold distance than the first predetermined threshold distance of FIGS. **10**F-**10**G). Based on this determination, computer system **600** switches from using camera **1080***b* to using camera **1080***a* (e.g., as indicated by use indicator **1092** being located at camera **1080***a* in FIG. **10**H) to display the portion of live preview **630** in camera display region **604** (e.g., using similar techniques and for similar reasons as those discussed above in relation to FIGS. **10**A-**10**C). At FIG. **10**H, computer system **600** detects tap input **1050***h* on shutter control **610**. At FIG. **10**H, a determination is made that the current distance (e.g., D**4** in FIG. **10**H) between the focal point and cameras **1080***a*-**1080***c* is not greater than the second predetermined threshold distance (e.g., based on the minimum focal distance of camera **1080***b*, a smaller threshold distance than the first predetermined threshold distance of FIGS. **10**F-**10**G). At FIG. **10**H, because the determination is made that the current distance between the focal point and cameras **1080***a*-**1080***c* is not greater than the second predetermined threshold distance, computer system **600** captures media representative of live preview **630** using camera **1080***a*. As illustrated in FIG. **10**I, computer system **600** updates media collection **612** to include a representation of media that was captured in response to detecting tap input **1050***h*.

FIGS. **10**A-**10**I describe embodiments where computer system **600** determines whether or not to automatically switch between using cameras to display live preview **630** and/or capture media based on the distance between the focal point and cameras **1080***a*-**1080**c being greater than and/or less one or more predetermined threshold distances. In some embodiments, the predetermined threshold distances are adjusted and/or changed based on the detected amount of light in the field-of-view of the one or more cameras. In some embodiments, when the detected amount of light in the field-of-view of the one or more cameras is below a light threshold (e.g., 20 lux, 15 lux, 10 lux, or 5 lux), the predetermined threshold distances are adjusted to make switching between a set of cameras and/or to a camera (e.g., camera **1080***a*) occur at different distances than when the detected amount of light in the field-of-view of the one or more cameras is above the light threshold. In some embodiments, the predetermined threshold distances are adjusted to make switching between a set of cameras and/or to a respective camera (e.g., camera **1080***a*) occur at different distances by making a range of distances smaller for which computer system **600** switches to the set of cameras and/or the respective camera. For example, if the predetermined threshold distance is 8-10 cm when the amount of light detected in the field-of-view is above the light threshold, the predetermined threshold distance can be adjusted to 6-8 cm when the detected amount of light in the field-of-view is below the light threshold.

FIG. **11** is a flow diagram illustrating an exemplary method for managing media capture using a computer system in accordance with some embodiments. Method **1100** is performed at a computer system (e.g., **600**) (e.g., a smartphone, a desktop computer, a laptop, and/or a tablet) that is in communication with a display generation component (e.g., a display controller and/or a touch-sensitive display system) and a plurality of cameras (e.g., **1080***a*, **1080***b*, and/or **1080***c*) (e.g., one or more cameras/camera sensors (e.g., dual cameras/camera sensors, triple camera/camera sensors, and/or quad cameras/camera sensors) on the same side or different sides of the computer system (e.g., a front camera and/or a back camera))) (e.g., one or more ultra wide-angle, wide-angle, an/or telephoto cameras) that includes a first camera (e.g., **1080***b* or **1080***c*) (e.g., a hardware camera and/or camera sensor (e.g., a wide-angle camera and/or camera sensor, a camera having a wide-angled width) and/or (e.g., a telephoto camera)) with (e.g., one or more) first image capture parameters (e.g., represented by **1090***b* or **1090***c*) (e.g., **1072***b* or **1072***c*) determined by hardware (e.g., sensor size, shape, and/or placement; lens shape, size, and/or placement; and/or aperture size, shape, and/or placement) of the first camera (e.g., a first minimum focal distance (e.g., 7-12 cm or 12-15 cm) and a first field-of-view (e.g., an open observable area that is visible to a camera, the horizontal (or vertical or diagonal) length of an image at a given distance from the camera lens) (and, in some embodiments, a hardware or optical field-of-view (FOV) based on the sensor size and the focal length of the lens (e.g., not a digitally zoomed in FOV))) and a second camera (e.g., **1080***a* or **1080***b*) (e.g., a hardware camera and/or camera sensor (e.g., an ultra-angle camera and/or camera sensor, a camera having an ultra-wide-angle width) and/or (e.g., a wide angled camera) with (e.g., one or more) second image capture parameters (e.g., represented by **1090***a* or **1090***b*) (e.g., **1072***a* or **1072***b*) determined by hardware (e.g., sensor size, shape, and/or placement; lens shape, size, and/or placement; and/or aperture size, shape, and/or placement) of the second camera (e.g., a second minimum focal distance (e.g., 0-6 cm or 7-12 cm) that is shorter than the first minimum focal distance (e.g., 7-12 cm or 12-15 cm) of the first camera and/or a second field of view that is wider than the first field-of-view (e.g., a FOV that has a wider angle of view in at least one dimension) of the first camera) (e.g., the wide-angle camera). The second image capture parameters are different than the first image capture parameters. In some embodiments, the computer system is in communication with one or more input devices (e.g., a touch-sensitive surface).

As described below, method **1100** provides an intuitive way for altering visual media. The method reduces the cognitive burden on a user for managing media capture, thereby creating a more efficient human-machine interface. For battery-operated computing devices, enabling a user to manage media capture faster and more efficiently conserves power and increases the time between battery charges.

The computer system (e.g., **600**) displays (**1102**), via a display generation component, a camera user interface that includes a representation (e.g., **630**) (e.g., a representation over-time and/or a live preview feed of data from a camera) of a field-of-view of one or more of the plurality of cameras, where (e.g., **630**) the representation of the field-of-view is displayed using visual information collected by (e.g., using/based on (e.g., generated based on/using) data captured by) the first camera (e.g., **1080***b* or **1080***c*) with the first image capture parameters (e.g., represented by **1090***b* or **1090***c*) (e.g., without using the second camera (and/or visual information collected by the second camera with the second camera image capture parameters) to display the representation of the media). In some embodiments, the first camera is a first type of camera.

While displaying the representation (e.g., **630**) of the field-of-view using the visual information collected by the first camera (e.g., **1080***b* or **1080***c*) (e.g., with the first image capture parameters), the computer system detects (**1104**) a decrease in distance (e.g., D**1** or D**2** in FIGS. **10**A-**10**I) (e.g., a physical distance or a distance of an optical path) between a camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c*) (e.g., a location of a focal plane of a camera or a location based on a focal plane of the camera) that corresponds to at least one of the plurality of cameras (e.g., **1080***a*, **1080***b*, or **1080***c*) (e.g., the first camera and/or the second camera) and a focal point location (e.g., represented by position of **1078**) that correspond to a focal point (e.g., represented by **1078**) (e.g., an estimated or determined distance to a physical object at a focal point that has been selected (e.g., automatically (e.g., without user input) or with user input corresponding to selection of the focal point (e.g., user input such as tap input (e.g., single tap and/or double tap), press-and-hold input, and/or dragging input) (e.g., for media capture) (e.g., In some embodiments, due to movement of computer system and/or at least one of the plurality of cameras, the focal point moving (e.g., an object that the camera is focus on moving), and/or selection of a different focal point). In some embodiments, the computer system is configured to cause at least one of the plurality of cameras to focus at the focal point (e.g., focal point in the field-of-view).

In response to (**1106**) detecting the decrease in distance (e.g., D**1**, D**2**, or D**3** in FIGS. **10**A-**10**I) between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**) and in accordance with a determination that the decreased distance (e.g., D**1**, D**2**, or D**3** in FIGS. **10**A-**10**I) between the camera location and the focal point location is closer than a predetermined threshold distance (e.g., 2-3 cm, 8-10 cm, 0-6 cm, 7-12 cm, 12-15 cm, 1-5 m, 2-6 m, or 3-10 m), the computer system transitions (**1108**) (e.g., switches) from using the visual information collected by the first camera (e.g., **1080***b* or **1080***c*) to display the representation (e.g., **630**) of the field-of-view to using visual information collected by the second camera (e.g., **1080***a* or **1080***b*) (e.g., that has a wider field-of-view than the field-of-view of the first camera) to display the representation (e.g., **630**) of the field-of-view (e.g., without using the first camera to display the representation of the media). In some embodiments, the second camera is a different type of camera (e.g., has a lens with a different (e.g., wider) lens than camera) than the first type of camera that corresponds to the first camera. Automatically transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view when prescribed conditions are met allows the computer system to automatically choose whether the first camera or second camera will be used to display the representation, without requiring the user to choose and select (e.g., via one or more additional inputs) the preferred camera (e.g., based on the image capture parameters for the camera) for displaying the representation of the field-of-view at a particular point in time, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, the predetermined threshold distance (e.g., 2-3 cm, 8-10 cm, 0-6 cm, 7-12 cm, 12-15 cm, 1-5 m, 2-6 m, or 3-10 m) is based on (e.g., at least) the first image capture parameters (e.g., represented by **1090***b* or **1090***c*) (e.g., of the first camera) (e.g., such as the minimum focal distance of the first camera) (and/or the second image capture parameters (e.g., represented by **1090***a* or **1090***b*)). Automatically transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view when prescribed conditions are met, where at least one of the prescribed conditions is based on the image capture parameters of a camera of the device allows the computer system to automatically choose whether the first camera or second camera will be used to display the representation, without requiring the user to choose and select (e.g., via one or more additional inputs) the preferred camera for displaying the representation of the field-of-view at a particular point in time, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, while displaying the representation (e.g., **630**) of the field-of-view using the visual information collected by the first camera, the computer system detects a request (e.g., **1050***f*, **1050***g*, or **1050***h*) to capture media. In some embodiments, as a part of detecting a request to capture media, the computer system detects an input directed to (e.g., on, at a location corresponding to) a user interface object (e.g., a shutter button) for capturing media. In some embodiments, the computer system displays the camera user interface includes the user interface object for capturing media. In some embodiments, the computer system displays the user interface object for capturing media is displayed concurrently with the representation of the media. In some embodiments, in response to detecting the request to capture media, the computer system captures media (e.g., represented by **612** in FIGS. **10**G-**10**I) using: in accordance with a determination that a current distance (e.g., D**2** in FIGS. **10**F-**10**G) (e.g., that was determined after the capture of media was detected) between the camera location (e.g., position of camera and/or view point of camera **1080***a*, **1080***b*, or **1080***c*) and the focal point location (e.g., represented by **1078**) is closer than a second predetermined threshold distance (e.g., 2-3 cm, 8-10 cm, 0-6 cm, 7-12 cm, 12-15 cm, 1-5 meters, 2-6 meters, or 3-10 meters) (e.g., as discussed above in relation to FIGS. **10**F-**10**G), second visual information collected by the first camera (e.g., **1080***b* or **1080***c*) (e.g., without using visual information collected by the second camera); and in accordance with a determination that the current distance between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**) is not closer than the second predetermined threshold distance (e.g., as discussed above in relation to FIGS. **10**F-**10**G), second visual information collected by the second camera (e.g., **1080***a* or **1080***b*) (e.g., without using visual information collected by the first camera). In some embodiments, in response to detecting the request to capture media, the computer system determines whether or not the current distance between the camera location and the focal point location is closer than the second predetermined threshold distance. In some embodiments, the second visual information collected by the first camera is visual information that has been captured after the request to capture media was detected. In some embodiments, the second visual information collected by the second camera is visual information that has been captured after the request to capture media was detected. In some embodiments, the second predetermined threshold distance is the same as the predetermined threshold distance. Choosing whether to capture media using the first camera or the second camera when prescribed conditions are met allows the computer system to automatically choose whether the first camera or second camera will be used to capture media, without requiring the user to choose and select (e.g., via one or more additional inputs) the preferred camera for capturing media at a particular point in time, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, in response to (**1106**) detecting the decrease in distance (e.g., D**1**, D**2**, or D**3** in FIGS. **10**A-**10**I) between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**) and in accordance with a determination that the decreased distance (e.g., D**1**, D**2**, or D**3** in FIGS. **10**A-**10**I) between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**) is not closer than the predetermined threshold distance, the computer system forgoes transitioning from using the visual information collected by the first camera (e.g., **1080***b* or **1080***c*) to display the representation (e.g., **630**) of the field-of-view to using the visual information collected by the second camera (e.g., **1080***a* or **1080***b*) to display the representation of the field of view (and continuing to display the representation of the field-of-view using the visual information collected by the first camera). Choosing whether or not to transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view when prescribed conditions are met, without requiring the user to choose and select (e.g., via one or more additional inputs) the preferred camera for displaying the representation of the field-of-view at a particular point in time, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, the decrease in distance between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**) is detected based on (e.g., at least) (e.g., in response to) movement (e.g., as shown in FIGS. **10**A-**10**I) of the computer system (e.g., **600**) (e.g., the decrease in distance between the camera location and the focal point location is detected in response to the one or more cameras moving and/or the computer system moving). In some embodiments, the computer system is in communication with one or more sensors (e.g., motion sensors and/or accelerometers) that are capable of detecting movement of the computer system and detecting the decrease in distance includes detecting movement of the computer system, via the one or more sensors. Automatically transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view when prescribed conditions are met due to movement of a camera allows the computer system to automatically choose whether the first camera or second camera will be used to display the representation, without requiring the user to choose and select (e.g., via one or more additional inputs) the preferred camera (e.g., based on the image capture parameters for the camera) for displaying the representation of the field-of-view at a particular point in time when a camera has been moved, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, the decrease in distance between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**) is detected based on a new focal point (e.g., **1078**) being selected (e.g., as shown in FIGS. **10**A-**10**D) (e.g., where the new focal point and/or the focal point was not selected before the decrease in distance between the camera location and the focal point location was detected). In some embodiments, the new focal point is automatically (e.g., without user input directed to the display generation component) selected (and/or a focal point is changed from an old focal point to a new focal point) by the computer system based on one or more conditions in the field-of-view. In some embodiments, the new focal point is manually selected (e.g., by a user of the device, via one or more inputs directed to the display generation component). In some embodiments, the one or more inputs is a tap input (e.g., a single tap input and/or a multi-tap input) directed to the display generation component. In some embodiments, the one or more inputs is a non-tap input (e.g., a press-and-hold input, voice input, a pinch input (e.g., to change the zoom level of the representation), and/or a swipe input (e.g., to pan the representation)). Automatically transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view when prescribed conditions are met due to a new focal point being selected allows the computer system to automatically choose whether the first camera or second camera will be used to display the representation, without requiring the user to choose and select (e.g., via one or more additional inputs) the preferred camera (e.g., based on the image capture parameters for the camera) for displaying the representation of the field-of-view at a particular point in time when a new focal point has been selected, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, while displaying the representation (e.g., **630**) of the field-of-view using visual information collected by the second camera (e.g., **1080***a* or **1080***b*), the computer system detects an increase in distance between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**). In some embodiments, in response to (**1106**) detecting the decrease in distance (e.g., D**1**, D**2**, or D**3** in FIGS. **10**A-**10**I) between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**) and in accordance with a determination that the increased distance (e.g., D**1**, D**2**, or D**3** in FIGS. **10**A-**10**I) between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**) is not closer (e.g., is further) than a third predetermined threshold distance (e.g., 2-3 cm, 8-10 cm, 0-6 cm, 7-12 cm, 12-15 cm, 1-5 m, 2-6 m, or 3-10 m), the computer system transitions from using the visual information collected by the second camera (e.g., **1080***a* or **1080***b*) to display the representation of the field-of-view to using visual information collected by the first camera (e.g., **1080***b* or **1080***c*) to display the representation of the field-of-view (e.g., without displaying the representation of the media using visual information collected by the first camera). In some embodiments, the third predetermined threshold distance is the same as the predetermined threshold distance. In some embodiments, the third predetermined threshold distance is different (e.g., greater than) than the predetermined threshold distance. In some embodiments, the third predetermined threshold distance is the same as the predetermined threshold distance. In some embodiments, in response to detecting the increase in distance between the camera location and the focal point location and in accordance with a determination that the increased distance between the camera location and the focal point location is closer than the third predetermined threshold distance, the computer system does not transition (e.g., forgoes transitioning) from using the visual information collected by the second camera to display the representation of the field-of-view to using visual information collected by the first camera to display the representation of the field-of-view (and continuing to display the representation of the field-of-view using the visual information collected by the second camera). Transitioning from using the visual information collected by the second camera to display the representation of the field-of-view to using visual information collected by the first camera to display the representation of the field-of-view when prescribed conditions are met allows the computer system to automatically choose whether the first camera or second camera will be used to display the representation, without requiring the user to choose and select (e.g., via one or more additional inputs) the preferred camera (e.g., based on the image capture parameters for the camera) for displaying the representation of the field-of-view at a particular point in time, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments-, the representation of the field-of-view is displayed at an effective zoom level (e.g., a zoom level at which the representation appears to be displayed, a range of zoom levels that are within a predetermined amount (e.g., below a threshold amount) from each other (e.g., 0.00000001×, 0.0000004×, 0.0003×, 0.03×, 0.07×0.0.1×, 0.16×, or 0.2× zoom amount) before the decrease in distance between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**) was detected. In some embodiments, as a part of transitioning from using the visual information collected by the first camera (e.g., **1080***b* or **1080***c*) to display the representation (e.g., **630**) of the field-of-view to using visual information collected by the second camera (e.g., **1080***a* or **1080***b*) to display the representation of the field-of-view, the computer system continues to display the representation of the field-of-view at the effective zoom level (e.g., as represented by **622***a*, **622***b*, **622***c*). In some embodiments, the effective zoom level is different from a native zoom level of the second camera (e.g., displaying the representation of the field-of-view at the effective zoom level includes displaying the representation of the field-of-view at a digital zoom level relative to the native zoom level of the second camera) (e.g., at which representation was displayed before the decrease in distance between the camera location and the focal point location was detected). In some embodiments, after transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view, the representation of the field-of-view is displayed at a zoom level that is no more than a first amount of zoom (e.g., 0.0001× to 0.02×) from the zoom level, such that the representation appears to continue to be displayed at the zoom level. In some embodiments, in response to detecting the decreased distance between the camera location and the focal point location and in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, the computer system continues to display the representation of the field-of-view at the zoom level. Continuing to display the representation of the field-of-view at the effective zoom level as a part of transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view provides the user with improved visual feedback by maintaining (and/or reducing) the effective zoom at which the representation of the field-of-view is displayed, which provides improved visual feedback.

In some embodiments, transitioning from using the visual information collected by the first camera (e.g., **1080***b* or **1080***c*) to display the representation of the field-of-view to using the visual information collected by the second camera (e.g., **1080***a* or **1080***b*) to display the representation (e.g., **630**) of the field-of-view includes changing an appearance of the representation of the field-of-view (e.g., visually updating the appearance of the representation of the field-of-view) . In some embodiments, the updated representation of the field-of-view has a different appearance than the representation of the field-of-view that was displayed before transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using the visual information collected by the second camera to display the representation of the field-of-view. Changing an appearance of the representation of the field-of-view as a part of transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using the visual information collected by the second camera to display the representation of the field-of-view provides feedback to the user that one or more changes have occurred with respective to how the representation of the field-of-view is being displayed, which provides improved visual feedback.

In some embodiments, the first camera (e.g., **1080***b* or **1080***c*) is located (e.g., physically located) at a first position on the computer system (e.g., **600**). In some embodiments, the second camera (e.g., **1080***a* or **1080***b*) is located (e.g., physically located) at a second position (e.g., different from the first position) on the computer system (e.g., **600**). In some embodiments, as a part of transitioning from using the visual information collected by the first camera (e.g., **1080***b* or **1080***c*) to display the representation (e.g., **630**) of the field-of-view to using visual information collected by the second camera (e.g., **1080***a* or **1080***b*) to display the representation of the field-of-view, the computer system displays the representation of the field-of-view that is shifted to increase alignment between the field of view of the first camera and the field of view of the second camera near a predetermined portion (e.g., a portion at the center of the representation of the field-of-view (e.g., live preview) or the focal point) of the camera user interface (e.g., user interface that includes **602**, **604**, and **606**) than the amount of translation near the predetermined portion while decreasing alignment between the field of view of the first camera and the field of view of the second camera at one or more portions of the representation of the field-of-view that are further away from the predetermined portion. In some embodiments, the amount of translation at the predetermined portion of the camera user interface is less than an amount of translation at a second predetermined portion (e.g., at an edge) of the camera user interface. In some embodiments, in accordance with a determination that the focal point corresponds to a first location on the camera user interface, the computer system shifts the representation of the field-of-view by a first amount to increase the alignment between the field of view of the first camera and the field of view of the second camera near a predetermined portion of the camera user interface. In some embodiments, in accordance with a determination that the focal point corresponds to a first location on the camera user interface, the computer system shifts the representation of the field-of-view by a second amount that is different from (e.g., larger than or smaller than) the first amount to increase the alignment between the field of view of the first camera and the field of view of the second camera near a predetermined portion of the camera user interface. Displaying the representation of the field-of-view with a reduced amount of translation near a predetermined portion of the camera user interface than the amount of translation near the predetermined portion that would occur when the first camera is located at a position that is different from the first position and/or when the second camera is located at a position that is different from the second position as a part of transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view provides the user with improved visual feedback by reducing the amount of translation (and/or distractions and changes to the camera user interface) that transitioning between using the cameras could cause to the display of the camera user interface and/or the representation of the field-of-view, which provides improved visual feedback.

In some embodiments, the plurality of cameras includes a third camera (e.g., **1080***b* or **1080***c*) (e.g., a hardware camera and/or camera sensor (e.g., an telephoto camera and/or camera sensor, a camera having a width)) (e.g., a camera that is different from the first camera and/or the second camera) with (e.g., one or more) third image capture parameters (e.g., **1090***b* or **1090***c*) determined by hardware (e.g., sensor size, shape, and/or placement; lens shape, size, and/or placement; and/or aperture size, shape, and/or placement) of the third camera (e.g., a third minimum focal distance that is longer than the first minimum focal distance of the first camera and the second minimum focal distance of the second camera and/or a third field of view that is narrower than the first field-of-view and/or the second field-of-view), and wherein the third image capture parameters (e.g., **1090***b* or **1090***c*) are different than the first image capture parameters (e.g., **1090***b* or **1090***c*) and the second image capture parameters (e.g., **1090***a* or **1090***b*). In some embodiments, before displaying the representation (e.g., **630**) of the field-of-view using the visual information collected by the first camera (e.g., **1090***b* or **1090***c*) with the first image capture parameters, the computer system displays the representation of the field-of-view using visual information collected by the third camera with the third image capture parameters. In some embodiments, while displaying the representation of the field-of-view using the visual information collected by the third camera (e.g., **1090***b* or **1090***c*) (e.g., with the third image capture parameters), the computer system detects a second decrease in distance (e.g., represented by D**1**, D**2**, or D**3**) (e.g., a physical distance or a distance of an optical path) between the camera location (e.g., position of **1080***a*, **1080***b*, or **1080***c* and/or viewpoint of **1080***a*, **1080***b*, **1080***c*) and the focal point location (e.g., represented by position of **1078**). In some embodiments, the second decrease in distance occurs due to a different set of circumstance than the decrease in distance. In some embodiments, in response to detecting the second decrease in distance between the camera location and the focal point location and in accordance with a determination that the second decreased distance between the camera location and the focal point location is closer than a fourth predetermined distance (e.g., 2-3 cm, 8-10 cm, 0-6 cm, 7-12 cm, 12-15 cm, 1-5 m, 2-6 m, or 3-10 m), the computer system transitions (e.g., switches) from using the visual information collected by the third camera to display the representation of the field-of-view to using the visual information collected by the first camera to display the representation of the field-of-view (e.g., without using visual information collected by the first camera and/or the third camera). In some embodiments, in response to detecting the second decrease in distance between the camera location and the focal point location and in accordance with a determination that the second decreased distance between the camera location and the focal point location is not closer than the fourth predetermined distance, the computer system forgoes transitioning from using the visual information collected by the third camera to display the representation of the field-of-view to using visual information collected by the first camera to display the representation of the field-of-view. In some embodiments, as a part of and/or after transitioning from using the visual information collected by the third camera to display the representation of the field-of-view to using the visual information collected by the first camera to display the representation of the field-of-view, the computer system displays the representation of the field-of-view to using visual information collected by the first camera. Automatically transitioning from using the visual information collected by the third camera to display the representation of the field-of-view to using visual information collected by the first camera to display the representation of the field-of-view when prescribed conditions are met allows the computer system to automatically choose whether the first camera or second camera will be used to display the representation, without requiring the user to choose and select (e.g., via one or more additional inputs) the preferred camera (e.g., based on the image capture parameters for the camera) for displaying the representation of the field-of-view at a particular point in time, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, in accordance with a determination that an amount of light (e.g., ambient light and/or available light) in the field-of-view of one or more of the plurality of cameras (e.g., when detecting the decrease in distance (e.g., a physical distance or a distance of an optical path) between the camera location and the focal point location) is above a threshold amount of light (e.g., 22 lux, 20 lux, 11 lux, 10 lux, 5 lux, and/or 1 lux) (e.g., a low-light threshold, a threshold where the computer system can be configured to operate in a low-light mode when the amount of light in the field-of-view is below the threshold), the predetermined threshold distance is a first threshold distance (e.g., as discussed above (e.g., in relation to FIG. **10**I)). In some embodiments, in accordance with a determination that the amount of light in the field-of-view of one or more of the plurality of cameras is not above the threshold amount of light (e.g., when detecting the decrease in distance (e.g., a physical distance or a distance of an optical path) between the camera location and the focal point location), the predetermined threshold distance is a second threshold distance that is different from (e.g., shorter than) the first threshold distance (e.g., as discussed above (e.g., in relation to FIG. **10**I)). In some embodiments, in accordance with a determination that the amount of light in the field-of-view of one or more of the plurality of cameras is not above the threshold, the camera location has to be closer to the focal point location before the computer system transitions from using the visual information collected by one camera (e.g., the first camera and/or third camera) to display the representation of the field-of-view to using visual information collected by the other camera (e.g., second camera and/or third camera) to display the representation of the field-of-view. Automatically having a predetermined threshold distances that changes when prescribed conditions are met allows the computer system automatically choose whether the first camera or second camera will be used to display the representation based on the amount of light in the field-of-view which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, the first camera (e.g., **1080***b* or **1080***c*) has a first fixed focal length (e.g., a first fixed angular field of view) and the second camera (e.g., **1080***a* or **1080***b*) has a second fixed focal length (e.g., corresponding to a second fixed angular field of view) that is different from the first fixed focal length (e.g., the first and second prime cameras). In some embodiments, the first camera has a fixed focal length that is different (e.g., longer or shorter) than the fixed focal length of the second camera. In some embodiments, the first camera (e.g., **1080***b* or **1080***c*) has a first minimum focal distance (e.g., A, B, or C in **1090**) (e.g., **1072***a*, **1072***b*, or **1072***c*) (e.g., 7-12 cm or 12-15 cm). In some embodiments, the second camera (e.g., **1080***a* or **1080***b*) has a second minimum focal distance (e.g., A, B, or C in **1090**) (e.g., **1072***a*, **1072***b*, or **1072***c*) (e.g., 1-6 cm or 7-12 cm). In some embodiments, the first minimum focal distance is longer (e.g., larger; greater in length) than the second minimum focal distance. In some embodiments, the first camera has a first minimum zoom level. In some embodiments, the second camera has a second minimum zoom level. In some embodiments, the first minimum zoom level is different than (e.g., larger or smaller) the second minimum zoom level. In some embodiments, the first camera has a first maximum zoom level (e.g., X, Y, or Z in **1090**). In some embodiments, the second camera has a second maximum zoom level (e.g., X, Y, or Z in **1090**). In some embodiments, the first maximum zoom level is different than (e.g., larger or smaller) the second maximum zoom level.

Note that details of the processes described above with respect to method **1100** (e.g., FIG. **11**) are also applicable in an analogous manner to the methods described above and/or below. For example, methods **700**, **800**, **900**, and/or **1300** optionally includes one or more of the characteristics of the various methods described above with reference to method **1100**. For example, the method described above in method **900** can be used to display media in a media editing user interface after the media is captured using one or more techniques described in relation to methods **700** and/or method **1100**. For brevity, these details are not repeated above.

FIG. **12** is a block diagram illustrating exemplary neural network system **1200**. In some embodiments, one or more components of neural network system **1200** are used to make a determination of whether an automatic change to the synthetic depth-of-field effect should be applied to the captured and/or edited media (e.g., in one or more scenarios as discussed above in relation to FIGS. **6**A-**6**BJ). In some embodiments, neural network system **1200** includes neural network training portion **1202** and neural network use portion **1204**.

Neural network training portion **1202** provides exemplary embodiments concerning how neural network **1224** is trained. Neural network training portion **202** includes training media **1206**. In some embodiments, training media **1262** includes data representing one or more frames of media (e.g., video). In some embodiments, training media includes one or more frames from 100, 200, 500, 1000, and/or 100,000 videos. In some embodiments, the one or more frames have previously been captured by one or more cameras of computer system **600**. In some embodiments, training media **1206** is processed by one or more object processing algorithms (e.g., one or more machine learning algorithms). In some embodiments, the one or more object processing algorithms use computer vision to identify one or more objects in media. In some embodiments, the one or more object processing algorithms identify one or more object identifiers **1208** and one or more object attributes **1210** in the one or more frames of training media **1206**. In some embodiments, object identifiers **1208** include identifiers that correspond to a face and/or head of a person (e.g., John **632** and/or Jane **634**) and/or animal (e.g., dog **638**), a torso of a person and/or animal, and/or an inanimate object (e.g., wagon **626** and/or flower **698**), such as a ball (e.g., a sports ball) and/or a wagon. In some embodiments, object identifiers **1208** include an object type (e.g., a person, an animation, a plant, a flower, etc.). In some embodiments, object attributes **1210** include one or more attributes (e.g., characteristics) of an object, such a face pose. In some embodiments, a face pose includes one or more attributes, such as the roll, pitch, and/or yaw of a detected face. In some embodiments, object attributes **1210** can include as a normalized (x, y) position, size, and/or confidence of a nose of a detected face and/or a left and/or right eye, ear, shoulder, elbow, wrist, hip, knee, and/or ankle of a detected person and/or animal.

As shown in neural network training portion **1202** of FIG. **12**, training media **1206**, object identifiers **1208**, and object attributes **1210** are used as training data **1220**, which is fed into neural network **1224**. Training data **1220** is used to train neural network **1224** and is also used by human reviewers to make trainer emphasis decisions **1222**. In some embodiments, neural network **1224** is a multilayer perceptron (e.g., an algorithm for supervised learning of binary classifiers). In some embodiments, the neural network outputs neural network emphasis decisions **1226** based on training data **1220**. In some embodiments, neural network emphasis decisions **1226** includes one or more determinations of whether an automatic change to the synthetic depth-of-field effect is needed at different times in a plurality of videos. In some embodiments, trainer emphasis decisions **1222** and neural network emphasis decisions **1226** are compared with an emphasis scoring module **1214** to generate emphasis scores. In some embodiments, trainer emphasis decisions **1222** is representative of a set of human opinions, where one or more people (e.g., multiple human annotators) have provided an indication of which subject (e.g., person, animal, and/or object optionally identified by an algorithm as object identifiers **1208**) and/or focal plane should be emphasized in one or more frames of training media **1206** by reviewing the video. The trainer emphasis decisions **1222** optionally indicate at what points a synthetic depth-of-field effect should be applied to emphasize the subject and/or focal plane in the one or more frames of training media **1206**. In some embodiments, emphasis scoring **1214** compares neural network emphasis decisions **1226** to trainer emphasis decisions **1222**, and neural network **1224** is trained to minimize a difference between neural network emphasis decisions **1226** and trainer emphasis decisions **1222**; this process can be repeated iteratively with additional neural network emphasis decisions **1226** based on changes to the neural network **1224**, additional trainer emphasis decisions **1222** based on additional reviewers reviewing the training media **1206**, or new training media **1206** being reviewed. In some embodiments, a greater or lesser number of emphasis scoring modules are used to train neural network **1224**. In some embodiments trainer emphasis decisions **1222** are representative of different people scoring the same media (e.g., where the person and/or people are different for each different frame of the media). When multiple people are scoring the same video there will sometimes be a disagreement on which subject should be emphasized at different times, when this occurs, the neural network training can take an average or most frequent trainer emphasis decision for use in training while less frequent trainer emphasis decisions are discarded or ignored. In some embodiments, emphasis scoring **1214** (e.g., a comparison of the neural network emphasis decisions with corresponding trainer emphasis decisions) are fed into neural network **1224** along with training data **1220** for training.

Neural network use portion **1204** provides exemplary embodiments concerning how neural network **1224** is used (e.g., during the capturing and/or editing of media). Neural network **1224** of neural network use portion **1204** is the trained and/or tuned version of neural network **1224** of neural network training portion **1202** (e.g., the neural network **1224** that was trained using the trainer emphasis decisions **1222** from human reviewers of training media **1206**). In some embodiments, the neural network **1224** is periodically updated when the software of the device (e.g., such as computer system **600**) running the neural network **1224** is updated (e.g., the training of the neural network occurs on a separate device from the device that is running the neural network). As shown in neural network use portion **1204**, captured media **1230** is provided. In some embodiments, captured media **1230** includes frames of media that are currently being captured. In some embodiments, captured media **1230** includes frames of media that is currently being edited and/or frames of media after the media has been captured. In some embodiments, one or more object identifiers **1232** and/or object attributes **1234** are determined from captured media **1230** (e.g., using one or more techniques as discussed above in relation to training media **1206**, object identifiers **1208**, and object identifiers **1208**). In some embodiments, captured media **1230**, object identifiers **1232**, and object attributes **1234** are fed into the neural network **1224** (e.g., the trained and/or tuned network). In some embodiments, neural network **1224** outputs one or more neural network emphasis decisions **1236** based on the captured media **1230**, object identifiers **1232**, and object attributes **1234**. In some embodiments, neural network **1224** outputs one or more neural network emphasis decisions **1236** based on user emphasis decisions **1238**, where user emphasis decisions **1238** can override a neural network emphasis decision that is based on the captured media **1230**, object identifiers **1232**, and object attributes **1234**. In some embodiments, user emphasis decisions **1238** are used as input for neural network **1224** to determine additional neural network emphasis decisions **1236** (e.g., adding or removing neural network emphasis decisions based on user emphasis decisions). In some embodiments, neural network emphasis decisions **1236** are used by media processor **1240** to output processed media **1242**. In some embodiments, media processor **1240** decided that neural network emphasis decisions **1236** should be overridden by whether user emphasis decisions **1238**. In some embodiments, when media processor **1240** decides that neural network emphasis decisions **1236** should be overridden by user emphasis decisions **1238**, the overridden neural network emphasis decisions **1236** is saved for future use (e.g., when a user-specified change is deleted as discussed above in relation to FIGS. **6**AZ-**6**BJ) (e.g., along with and/or associated with a depth map of the media that was determined, saved, and/or created while capturing and/or after (e.g., immediately after) capturing the media). In some embodiments, output from media processors **1240** and user emphasis decisions **1238** is fed back to captured media **1230** so that the capture of media can be adjusted (e.g., as discussed above in relation to computer system **600** and computer system **690** of FIGS. **6**A-**6**AA).

FIG. **13** is a flow diagram illustrating an exemplary method for altering visual media using a computer system in accordance with some embodiments. Method **1300** is performed at a computer system (e.g., **100**, **300**, **500**, **600**, a smartphone, and/or a smartwatch) that is in communication with a display generation component (e.g., a display controller and/or a touch-sensitive display system).

As described below, method **1300** provides an intuitive way for altering visual media. The method reduces the cognitive burden on a user for managing media capture, thereby creating a more efficient human-machine interface. For battery-operated computing devices, enabling a user to manage media capture faster and more efficiently conserves power and increases the time between battery charges. In some embodiments, the computer system is in communication with one or more input devices (e.g., a touch-sensitive surface) and/or one or more cameras (e.g., one or more cameras (e.g., dual cameras, triple camera, quad cameras, etc.) on the same side or different sides of the computer system (e.g., a front camera, a back camera)).

The computer system plays (**1302**), via the display generation component, a portion of a video (e.g., represented by **660**) (e.g., previously captured video media) (e.g., video captured using one or more techniques as described above in relation to methods **700**, **800**, and **900**) (e.g., one or more frames of the video are displayed via the display generation component while the portion of the video is being played) that includes a first subject emphasis change (e.g., **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, **688***h*, **688***i*, **688***j*, **688***k*, and/or **688***m*) (e.g., a synthetic depth-of-field transition) that occurs at a first time, where the first subject emphasis change (e.g., **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, **688***h*, **688***i*, **688***j*, **688***k*, and/or **688***m*) includes a change in appearance of visual information (e.g., as represented by **660**) captured by one or more cameras to emphasize a respective subject relative to one or more elements (e.g., one or more subjects (e.g., people, objects, and/or animals)) in the video during a first period of time that follows the first time (e.g., via a synthesized depth of field-of-effect, as described above in relation to methods **700**, **800**, and **900**) (e.g., a first subject is emphasized at a first time with a change to a second subject being emphasized at a second time). In some embodiments, the first period of time includes the first time. In some embodiments, the plurality of changes in subject emphasis in the video are represented by a plurality of representations of times (e.g., as described above in relation to the representation of the first time and/or the representation of the second time in method **900**).

After playing the portion of the video that includes the first subject emphasis change that occurs at the first time, the computer system detects (**1304**) a request (e.g., **650***ax*, **650***az*, **650***bb***1**, **650***bb***2**, **650***bd*, **650***bf*, **650***bh*, and/or **650***bi*) to change subject emphasis at a second time in the video that is different from the first time (e.g., at a first period of time during the duration of the video). In some embodiments, as a part of detecting the request to change subject emphasis in the video at a first period of time, the computer system detects a user input, such as tap input (e.g., single tap and/or double tap), press-and-hold input, and/or dragging input, that directed to the representation of the video and/or on a video navigation element (e.g., using one or more techniques, as described above in relation to methods **700**, **800**, and **900**)).

In response to (**1306**) detecting the request (e.g., **650***ax*, **650***az*, **650***bb***1**, **650***bb***2**, **650***bd*, **650***bf*, **650***bh*, and/or **650***bi*) to change subject emphasis at the second time in the video (e.g., and automatically, without intervening user input), the computer system changes (**1308**) the subject emphasis in the video during a second period of time that follows the second time (e.g., **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, **688***h*, **688***i*, **688***j*, **688***k*, and/or **688***m*) (e.g., as indicated by **661***bc***2**-**661***bi***2**) (e.g., applying a synthetic depth-of-field effect to a plurality of frames of the video that occur during the second period of time, where the synthetic depth-of-field effect that is applied to the plurality of frames of the video that occur during the second period of time is different from the synthetic depth-of-field effect that was applied to the plurality of frames of the video that occur during the second period of time (e.g., using one or more techniques as discussed above in relation to method **700**)) (and modifying (e.g., adding, updating, and/or deleting) a subject emphasis change that occurs during the second period of time and/or adding a new subject emphasis change during the second period of time). In some embodiments, the second period of time includes the second time. In some embodiments, the second period of time is different from the first period of time. In some embodiments, the second time is not included in the first time period. In some embodiments, the second time is before the first time. In some embodiments, the second period of time is not included in the first period of time and the first period of time is not included in the second period time. In some embodiments, no portion of the second period of time overlaps with the first period of time.

In response to (**1306**) detecting the request (e.g., **650***ax*, **650***az*, **650***bb***1**, **650***bb***2**, **650***bd*, **650***bf*, **650***bh*, and/or **650***bi*) to change subject emphasis at the second time in the video (e.g., and automatically, without intervening user input), the computer system changes (**1310**) the first subject emphasis change that occurs at the first time including changing the emphasis of the respective subject relative to the one or more elements in the video during the first period of time that follows the first time (e.g., as discussed above in relation to FIGS. **6**AV-**6**BJ) (e.g., applying a synthetic depth-of-field effect to a plurality of frames of the video that occurs at the first time (e.g., and during the first period of time), where the synthetic depth-of-field effect that is applied to the plurality of frames of the video that occur at the first time is different from the synthetic depth-of-field effect that was applied to the plurality of frames of the video that occur at the first time (e.g., using one or more techniques as discussed above in relation to method **700**)) (and modifying (e.g., adding, updating, and/or deleting) a subject emphasis change that occurs during the first period of time and/or adding a new subject emphasis change during the first period of time). In some embodiments, after changing the subject emphasis in the video during a second period of time that follows the second time and changing the first subject emphasis change that occurs at the first time including changing the emphasis of the respective subject relative to the one or more elements in the video during the first period of time that follows the first time (and/or in response to detecting the request to change subject emphasis that occurs at the second time in the video), the subject emphasis in the video at the first time and/or during the first time period is different from the subject emphasis in the video during the second time period. In some embodiments, before the computer system detects the request to change subject emphasis that occurs at the second time in the video (and/or before changing the subject emphasis in the video at the first period time and changing the subject emphasis in the video at the first period time), the subject emphasis in the video at the first time and/or during the first period of time is different from the subject emphasis in the video during the second period of time. Changing the subject emphasis in the video during the second period of time that follows the second time and changing the first subject emphasis change that occurs at the first time in response to detecting the request to change subject emphasis at the second time in the video allows the computer system to automatically change the subject emphasis at a time to which the request is not directed while also changing the subject emphasis at a time to which the request is directed to and allows the computer system to intelligently change the subject emphases during one or more times in the video that are different from the time in the video to which the request to change subject emphasis corresponded, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, before detecting the request (e.g., **650***ax*, **650***az*, **650***bb***1**, **650***bb***2**, **650***bd*, **650***bf*, **650***bh*, and/or **650***bi*) to change subject emphasis at the second time, the video includes a second subject emphasis change (e.g., **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, **688***h*, **688***i*, **688***j*, **688***k*, and/or **688***m*) that occurs at the second time. In some embodiments, as a part of changing the subject emphasis in the video during the second period of time that follows the second time, the computer system removes the second subject emphasis change that occurs at the second time (e.g., as discussed above in relation to FIGS. **6**BB-**6**BC, **6**BF-**6**BG and FIG. **6**BI-**6**BJ). In some embodiments, changes to the synthetic depth-of-field effect (and/or synthetic depth-of-field effect change indicators) are removed when the computer system applies a synthetic depth-of-field effect to emphasize a focal plane and/or non-temporarily emphasize a subject in response to detecting user input (e.g., a single tap input, a double tap input, and/or a press-and-hold input). In some embodiments, when the computer system applies a synthetic depth-of-field effect to emphasize a focal plane and/or non-temporarily emphasize a subject in response to detecting user input (e.g., a single tap input, a double tap input, and/or a press-and-hold input), one or more automatic changes to the synthetic depth-of-field effect are removed and/or ignored. In some embodiments, when the computer system applies a synthetic depth-of-field effect to emphasize a subject that a respective automatic change (e.g., that occurs after the first time and/or before another user-specified change to the synthetic depth-of-field effect) to the synthetic depth-of-field effect has also determined to emphasize, the respective automatic change is removed and/or ignored. Removing the second subject emphasis change that occurs at the second time and changing the first subject emphasis change that occurs at the first time in response to detecting the request to change subject emphasis at the second time in the video allows the computer system to intelligently change the subject emphases during one or more times in the video that are different from the time at which the subject emphasis was removed, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, before detecting the request (e.g., **650***ax*, **650***az*, **650***bb***1**, **650***bb***2**, **650***bd*, **650***bf*, **650***bh*, and/or **650***bi*) to change subject emphasis at the second time, the computer displays a first graphical user interface object (e.g., **688***c* and/or **688***h*)(e.g., a graphical user interface object indicating that an automatic change in subject emphasis occurred at the second time and/or a graphical user interface object indicating that an manual change occurred at the second time) (e.g., using one or more techniques as described above in relation to method **900**) (e.g., the representation of the second time, the representation of the first time, a graphical user interface object indicating that an automatic change in subject emphasis occurred at the second time and/or a graphical user interface object indicating that an manual change occurred at the second time)) indicating that the second subject emphasis change that occurs at the second time (on a video navigation user interface element at a location on the video navigation user interface element that corresponds to the second time (e.g., using one or more techniques, as described above in relation to method **900**)) (e.g., via the display generation component). As a part of detecting the request to change subject emphasis that occurs at the second time, the computer system: while displaying the first graphical user interface object (e.g., **688***c* and/or **688***h*), detects an input (e.g., **650***be*) (e.g., a tap gesture/input and/or, in some embodiments, a press-and-hold gesture/input, a mouse click, and/or a swipe gesture/input) directed to the first graphical user interface object; in response to detecting the input directed to the first graphical user interface object, displays an option (e.g., **688***c***2** and/or **688***h***2**) (e.g., a selectable option) to remove the second subject emphasis change that occurs at the second time (e.g., using one or more similar techniques as described above in relation to the option to remove the user-specified change in subject emphasis that occurred at the second time in the video and method **900**); and while displaying the option to remove the second subject emphasis change that occurs at the second time, detects an input (e.g., **650***bf*) (e.g., a tap gesture/input and/or, in some embodiments, a press-and-hold gesture/input, a mouse click, and/or a swipe gesture/input) directed to the option to remove the second subject emphasis change that occurs at the second time; and in response to detecting the input directed to the option to remove the second subject emphasis change that occurs at the second time, changes the subject emphasis in the video during the second period of time that follows the second time by removing the second subject emphasis change that occurs at the second time (e.g., as discussed above in relation to FIG. **6**BG). In some embodiments, in response to detecting the input directed to the option to remove the second subject emphasis change that occurs at the second time, the computer detects the request to change subject emphasis at the second time in the video.

In some embodiments, before detecting the input directed to the first graphical user interface object, the first graphical user interface object is displayed concurrently with (e.g., adjacent to, above, below, to the right of, to the left of, near, and/or on) a video navigation user interface element (e.g., **664***a* and/or **664***b*) with a first amount of visual emphasis (e.g., as discussed above in relation to FIG. **6**BE). In some embodiments, the option (e.g., **688***c***2** and/or **688***h***2**) to remove the second subject emphasis change that occurs at the second time in response to detecting the input (e.g., **650***be*) directed to the first graphical user interface object is concurrently displayed with the video navigation user interface element with a second amount of visual emphasis that is less than the first amount of visual emphasis (e.g., as discussed above in relation to FIG. **6**BF). In some embodiments, the video navigation user interface element is visually de-emphasized (e.g., more blurred, smaller, grayed-out, more translucent, and/or less zoomed in) when computer to the video navigation user interface element with the first amount of visual emphasis. In some embodiments, before detecting the input directed to the first graphical user interface object, the first graphical user interface object is displayed concurrently with a first visual appearance. In some embodiments, displaying the option to remove the second subject emphasis change that occurs at the second time in response to detecting the input directed to the first graphical user interface object includes displaying the video navigation user interface element with a second visual appearance, where video navigation user interface element displayed with the second visual appearance is less visually emphasized (e.g., more blurred, smaller, grayed-out, more translucent, and/or less zoomed in) than the video navigation user interface element displayed with the first visual appearance. Displaying the video navigation user interface element concurrently with the second amount of visual emphasis that is less than the first amount of visual emphasis as a part of displaying the option to remove the second subject emphasis change that occurs at the second time in response to detecting the input directed to the first graphical user interface object provides visual feedback to the user regarding the subject emphasis and/or the graphical user interface object that will be removed (e.g., to avoid unintended removal), which provides improved visual feedback.

In some embodiments, before detecting the request to change subject emphasis at the second time, the video does not include a (or, in some embodiments, any) subject emphasis change that occurs at the second time (e.g., as discussed above in relation to FIGS. **6**BH-**6**BI). In some embodiments, as a part of changing the subject emphasis in the video during the second period of time that follows the second time, the computer system adds a third subject emphasis change (e.g., **686***d*) that occurs at the second time (e.g., as discussed above in relation to FIGS. **6**BH-**6**BI). Adding a third subject emphasis change that occurs at the second time in response to detecting the request to change subject emphasis at the second time in the video allows the computer system to intelligently change the subject emphases during one or more times in the video that are different from the time at which the subject emphasis was added, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, detecting the request to change subject emphasis that occurs at the second time includes detecting a first type of input (e.g., **650***bb***2** and/or **650***bi*) (e.g., a press-and-hold gesture) (in some embodiments, a non-press-and-hold gesture (e.g., a tap gesture, swipe gesture) directed to the subject) that is directed to a first representation (e.g., **660**) of the video. In some embodiments, the first type of input is a first input (e.g., a press-and-hold gesture) (in some embodiments, a non-press-and-hold gesture (e.g., a tap gesture, swipe gesture) directed to the subject as described above in relation to methods **700**, **800**, and **900**) to select a first fixed focal plane (e.g., as indicated by **676**) in the video. In some embodiments, changing the subject emphasis in the video during the second period of time that follows the second time includes applying a synthetic depth-of-field effect to the first fixed focal plane (e.g., a focal plane that does not change as a respective subject (e.g., a second subject) moves within the plurality of frames) in a first plurality of frames of the video that correspond to the second period of time (e.g., altering the visual information captured by the one or more cameras to emphasize one or more objects/subjects near, on, and/or adjacent to the fixed focal plane) (e.g., using one or more techniques as described above in relation to methods **700**, **800**, and **900**) (e.g., as discussed in relation to FIGS. **6**BC-**6**BD and FIG. **6**BI-**6**BJ). In some embodiments, the fixed focal plane includes a location at which the input was directed to on the representation of the video. Applying the synthetic depth-of-field effect to a fixed focal plane in response to detecting the first type of input as a part of changing the subject emphasis in the video during the second period of time that follows the second time in response to detecting the first type of input allows the user to control how a synthetic depth-of-field effect is applied to a video and provides the user with more control of the system, which leads to more efficient control of the user interface.

In some embodiments, detecting the request to change subject emphasis that occurs at the second time includes detecting a second type of input (e.g., **650***bd* and/or **650***bh*) (e.g., a tap gesture directed to (e.g., on) a subject) (in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject) e.g., a multi-tap gesture (e.g., a double-tap gesture) directed to (e.g., on) a subject) (in some embodiments, a non-tap gesture (e.g., a rotational gesture, swipe gesture) directed to the subject as described above in relation to methods **700**, **800**, and **900**) that is directed to a second representation (e.g., **660**) of the video. In some embodiments, the second type of input is an input to select a first subject (e.g., **632**, **634**, and/or **638**) to focus on in the video. In some embodiments, changing the subject emphasis in the video during the second period of time that follows the second time includes applying a synthetic depth-of-field effect to emphasize the first subject relative to a second subject (e.g., the respective subject) in a second plurality of frames of the video that correspond to the second period of time (e.g., as discussed above in relation to FIGS. **6**BC-**6**BD and FIG. **6**BH-**6**BI) (e.g., altering the visual information captured by the one or more cameras to emphasize the first subject relative to the second subject) (e.g., using one or more techniques as described above in relation to methods **700**, **800**, and **900**). Applying the synthetic depth-of-field effect to emphasize the first subject relative to a second subject in a second plurality of frames of the video that correspond to the second period of time in response to detecting the second type of input allows the user to control how a synthetic depth-of-field effect is applied to a video and provides the user with more control of the system, which leads to more efficient control of the user interface.

In some embodiments, detecting the request to change subject emphasis that occurs at the second time includes detecting a third type of input (e.g., **650***bb***2** and/or **650***bi*) (e.g., a press-and-hold gesture) (in some embodiments, a non-press-and-hold gesture (e.g., a tap gesture, swipe gesture) directed to the subject) that is directed to a third representation (e.g., **660**) of the video. In some embodiments, the third type of input is a second input (e.g., a press-and-hold gesture) (in some embodiments, a non-press-and-hold gesture (e.g., a tap gesture, swipe gesture) directed to the subject as described above in relation to methods **700**, **800**, and **900**) to select a second fixed focal plane in the video. In some embodiments, in response to detecting the request to change subject emphasis at the second time in the video, the computer system displays an indication (e.g., **694***bc* and/or **694***bj*) of a distance to the second fixed focal plane (e.g., numbers, words, and/or symbols) (e.g., 0.01-50 meters) (e.g., a distance between the computer system and/or one or more cameras of the computer system to a plane that is in the field-of-view of the one or more cameras). In some embodiments, while and/or after displaying the indication of the distance to the fixed focal plane, the computer system detects a fourth input to select a third fixed focal plane that is different from the second fixed focal plane and, in response to detecting the fourth input, the computer system displays an indication of the distance to the third fixed focal plane. In some embodiments, the indication of the distance to the third fixed focal plane is different from the indication of the distance to the second fixed focal plane. In some embodiments, the indication of the distance to the second fixed focal plane is displayed on a frame of the video (e.g., a frame of the video) at the second time and/or in the second time period and/or while the video is being played. In some embodiments, after a predetermined period of time, the indication of the distance to the second fixed focal plane goes away. Displaying an indication of a distance to the second fixed focal plane in response to detecting the request to change subject emphasis at the second time in the video provides visual feedback to the user regarding the fixed focal plane that was selected, which provides improved visual feedback.

In some embodiments, the first subject emphasis change that occurs at the first time is a first type (e.g., applying a synthetic depth of field effect to a fixed focal place, applying a synthetic depth of field effect to emphasize a different subject relative to one or more subjects in the video) (e.g., as described above in relation to methods **700**, **800**, and **900**) of subject emphasis change. In some embodiments, changing the first subject emphasis change that occurs at the first time includes adding a fourth subject emphasis change (e.g., **688***i*, **688***j*, **688***k*, and/or **688***m*) at the first time (e.g., and removing the first subject emphasis change that occurs at the first time). In some embodiments, the fourth subject emphasis change is a second type (e.g., applying a synthetic depth of field effect to a fixed focal place, applying a synthetic depth of field effect to emphasize a different subject relative to one or more subjects in the video) (e.g., as described above in relation to methods **700**, **800**, and **900**) of subject emphasis change that is different from the first type of subject emphasis change. In some embodiments, automatic changes to synthetic depth-of-field are added when an emphasized subject (e.g., a subject emphasized in response to detecting the request to change subject emphasis at the second time in the video) ceases to be detected in the field-of-view of a camera (and the computer system, thus, needs to automatically select a new subject. Adding a fourth subject emphasis change at the first time as a part of changing the first subject emphasis change that occurs at the first time video allows the computer system to intelligently change the subject emphases during one or more times in the video that are different from the time at which the subject emphases change was selected, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, the first time corresponds to a first subset of the video at which an emphasized subject (e.g., a subject that was selected, using one or more techniques as described above in relation to methods **700**, **800**, and **900**), that was visible in a second portion of the video that preceded the first time, ceases to be visible (e.g., as discussed above in relation to FIGS. **6**BH-BI).

In some embodiments, changing the first subject emphasis change that occurs at the first time includes removing the first subject emphasis change that occurs at the first time (e.g., as discussed above in relation to FIG. **6**BF-**6**BG). Removing the first subject emphasis change that occurs at the first time as a part of changing the first subject emphasis change that occurs at the first time video allows the computer system to intelligently change the subject emphases during one or more times in the video that are different from the time at which the subject emphases change was selected, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, the first subject emphasis change that occurs at the first time is an automatic change (e.g., **686***d*, **686***f*, and/or **686***g*) (e.g., computer-generated change and/or a change that was not generated in response to an explicit user input to generate the subject emphasis change at the first time) in subject emphasis (and not a user-specified change in subject emphases as described above in relation to methods **700**, **800**, and **900**) (e.g., a change that occurs without intervening user input/gesture(s) (e.g., an automatic change in subject emphasis as described above in relation to methods **700**, **800**, and **900**). Removing the first subject emphasis change that is an automatic change in subject emphasis and occurs at the first time as a part of changing the first subject emphasis change that occurs at the first time video allows the computer system to intelligently change the subject emphases during one or more times in the video that are different from the time at which the subject emphases change was selected, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, before detecting the request to change subject emphasis at the second time in the video that is different from the first time, the video includes a fifth subject emphasis change that occurs at a third time. In some embodiments, in response to detecting the request to change subject emphasis at the second time in the video and in accordance with a determination that a set of emphasis change criteria are met, the set of emphasis change criteria including a criterion that is met when the fifth subject emphasis change that occurs at the third time is a user-specified change in subject emphasis, the computer system forgoes changing the fifth subject emphasis change that occurs at the third time (e.g., as discussed above in relation to FIG. **6**BG) (e.g., while forgoing including changing the emphasis of the respective subject relative to the one or more elements in the video during a third period of time that follows the third time). In some embodiments, in response to detecting the request to change subject emphasis at the second time in the video and in accordance with a determination that the set of emphasis change criteria are not met (e.g., fifth subject emphasis change that occurs at the third time is an automatic (e.g., computer-generated) change in subject emphasis), the computer system changes the fifth subject emphasis change that occurs at the third time including changing the emphasis of the respective subject relative to the one or more elements in the video during a third period of time that follows the third time. Forgoing changing the fifth subject emphasis change that occurs at the third time in accordance with a determination that the fifth subject emphasis change that occurs at the third time is a user-specified change in subject emphasis allows the computer system to intelligently choose not to remove user-specified changes in subject emphasis, which performs an operation when a set of conditions has been met without requiring further user input and reduces the number of inputs needed to perform an operation.

In some embodiments, the second time occurs after (e.g., occurs at a later time in the video than) the first time in the video (e.g., in the duration of the video). In some embodiments, the second period of time occurs after the first period of time (e.g., in the duration of the video). In some embodiments, the second time occurs before (e.g., occurs at an earlier time in the video than) the first time in the video (e.g., in the duration of the video). In some embodiments, the second period of time occurs before the first period of time (e.g., in the duration of the video).

In some embodiments, the video includes a fifth subject emphasis change that occurs at a fourth time (and/or one or more other subject emphases changes). In some embodiments, the computer system displays a first selectable user interface object (e.g., **662***d*). In some embodiments, while displaying the first selectable user interface object and while the video includes the fifth subject emphasis change that occurs at the fourth time, the computer system detects a first input (e.g., **650***az*) directed to the first selectable user interface object. In some embodiments, in response to detecting the first input directed to the first selectable user interface object and in accordance with a determination that the fifth subject emphasis change that occurs at the fourth time is a user-specified change in subject emphasis (and/or the one or more other subject emphases changes that are one or more user-specified changes in subject emphases), the computer system removes (e.g., disabling and/or deleting) the fifth subject emphasis change (e.g., **688***c*, **688***e*, and/or **688***h*) that occurs at the fourth time from the video (e.g., removing a synthetic depth of field effect that corresponds to the fifth subject emphasis change) (and/or removing the one or more other subject emphases changes that are one or more user-specified changes in subject emphasis) (e.g., ceasing to display a graphic indicator that corresponds to the fifth subject emphasis change). In some embodiments, the fifth subject emphasis change is a change that was requested during the capture of the media and/or during the editing (e.g., post-capture editing) of the media. In some embodiments, in response to detecting the first input directed to the first selectable user interface object, the computer system removes one or more user-specified changes that were requested during the capture of the media and remove one or more user-specified changes that were requested during the editing of the media. In some embodiments, in response to detecting the first input directed to the first selectable user interface object, the computer system displays the first selectable user interface object in an inactive state. In some embodiments, before detecting the first input directed to the first selectable user interface object, the first selectable user interface object is displayed in an active state. In some embodiments, in response to detecting the first input directed to the first selectable user interface object, all user-specified changes that are, applied to the media are, optionally, removed from being applied to the media. Removing the fifth subject emphasis change that occurs at the fourth time from the video in response to detecting the first input directed to the first selectable user interface object and in accordance with a determination that the fifth subject emphasis change is a user-specified change in subject emphasis and in response to detecting the first input directed to the first selectable user interface object allows the user to control whether user-specified changes in subject emphasis and provides the user with more control of the system, which leads to more efficient control of the user interface.

In some embodiments, in response to detecting the input directed to the first selectable user interface object and in accordance with a determination that the fifth subject emphasis change that occurs at the fourth time is an automatic change in subject emphasis, the computer system forgoes removing the fifth subject emphasis change that occurs at the fourth time from the video (e.g., **686***f* and/or **686***g* in FIG. **6**AZ) (e.g., as discussed above in relation to FIGS. **6**AZ-**6**BA) (and/or forgoing removing the one or more other subject emphases changes that are one or more user-specified changes in subject emphases) (e.g., continuing to display a graphic indicator that corresponds to the fifth subject emphasis change). Forgoing removing the fifth subject emphasis change that occurs at the fourth time from the video in response to detecting the first input directed to the first selectable user interface object and in accordance with a determination that the fifth subject emphasis change is an automatic change in subject emphasis and in response to detecting the first input directed to the first selectable user interface object allows the user to control whether user-specified changes in subject emphasis and provides the user with more control of the system, which leads to more efficient control of the user interface.

In some embodiments, while displaying the first selectable user interface object (e.g., **662***d*) and while the fifth subject emphasis change that occurs at the fourth time is removed from the video, the computer system detects a second input (e.g., **650***bb***1**) directed to the first selectable user interface object. In response to detecting the second input (e.g., **650***bb***1**) directed to the first selectable user interface object, the computer system adds (e.g., re-adding and/or re-enabling) the fifth subject emphasis change that occurs at the fourth time to the video (e.g., as discussed above in relation to **650***bb***1**) (e.g., re-applying a synthetic depth of field effect that corresponds to the fifth subject emphasis change) (and/or adding the one or more other subject emphases changes that are one or more user-specified changes in subject emphases). In some embodiments, in response to detecting the second input directed to the first selectable user interface object, the computer system displays the first selectable user interface object in an active state. In some embodiments, before detecting the second input directed to the first selectable user interface object, the first selectable user interface object is displayed in an inactive state. In some embodiments, in accordance with a determination that the video does not include one or more user-specified (or any user-specified) subject emphasis changes, the first selectable user interface object is displayed in the inactive state (e.g., disabled state) and, in accordance with a determination that the video includes one or more user-specified (or any user-specified) subject emphasis changes, the first selectable user interface object is displayed in the active state (e.g., enabled state). Adding the fifth subject emphasis change that occurs at the fourth time from the video in response to detecting the first input directed to the first selectable user interface object that was detected while displaying the first selectable user interface object and while the fifth subject emphasis change that occurs at the fourth time is removed from the video allows the user to control whether user-specified changes in subject emphasis and provides the user with more control of the system, which leads to more efficient control of the user interface.

In some embodiments, while the fifth subject emphasis change (e.g., **688***c*) that occurs at the fourth time is removed from the video and while displaying the first selectable user interface object (e.g., **662***d* in FIG. **6**BB) in an inactive state, the computer system detects a request (e.g., **650***bb***2**) to add one or more user-specified changes in subject emphasis. IN some embodiments, in response to detecting the request to add one or more user-specified changes in subject emphasis, the computer system displays the first selectable user interface object (e.g., **622***d* in FIG. **6**BC) in an active state that is different from an inactive state without adding (e.g., re-adding and/or re-enabling) the fifth subject emphasis change that occurs at the fourth time to the video. In some embodiments, in response to detecting the request to add one or more user-specified changes in subject emphases, the computer system adds the one or more user-specified changes in subject emphases to the video and the deletes the fifth subject emphasis change that occurs at the fourth time to the video. Displaying the first selectable user interface object in an active state that is different from an inactive state without adding the fifth subject emphasis change that occurs at the fourth time to the video in response to detecting the request to add one or more user-specified changes in subject emphases allows the computer system to manage new changes in subject emphasis and delete old changes in subject emphasis and provides the user with more control of the system, which leads to more efficient control of the user interface.

In some embodiments, while the video includes the first subject emphasis change that occurs at the first time and in accordance with a determination that the first subject emphasis (e.g., **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, **688***h*, **688***i*, **688***j*, **688***k*, and/or **688***m*) change is a user-specified change in subject emphasis, the computer displays a second graphical user interface object indicating that the first subject emphasis change that occurs at the first time with a first visual appearance (e.g., **688***c*, **688***e*, **688***h*, **688***i*, **688***j*, **688***k*, and/or **688***m*) (e.g., as describe above in relation to method **900**). In some embodiments, while the video includes the first subject emphasis change that occurs at the first time and in accordance with a determination that the first subject emphasis (e.g., **686***a*, **686***b*, **688***c*, **686***d*, **688***e*, **686***f*, **686***g*, **688***h*, **688***i*, **688***j*, **688***k*, and/or **688***m*) change is an automatic change in subject emphasis, the computer system displays the second graphical user interface object with a second visual appearance (e.g., appearance of **686***a*, **686***b*, **686***d*, **686***f*, and/or **686***g*,) (e.g., as describe above in relation to method **900**) that is different from the first visual appearance. In some embodiments, the computer system concurrently displays a graphical object indicating an automatic change in subject emphasis with a graphical object indicating a user-specified change in subject emphasis. In some embodiments, the graphical object indicating an automatic change in subject the second visual appearance and the graphical object indicating a user-specified change in subject emphasis has the first visual appearance. Displaying the second graphical user interface object indicating that the first subject emphasis change that occurs at the first time differently based on whether the first subject emphasis change is a user-specified change or an automatic change provides visual feedback to the user regarding what source caused the subject emphasis change, which provides improved visual feedback.

In some embodiments, the subject emphasis at the second time in the video is a third type of subject emphasis. In some embodiments, after playing the portion of the video that includes the first subject emphasis change at the first time, the computer system detects a second request (e.g., **650***bd*) to change subject emphasis at the second time. In some embodiments, in response to detecting the second request (e.g., **650***bd*) to change subject emphasis at the second time and in accordance with a determination that the second request to change subject emphasis at the second time is a request to change the subject emphasis at the second time in video to the third type of subject emphasis (e.g., a request to apply the same synthetic depth of field effect that is currently being applied to the second time in the video) (e.g., a request to emphasize a subject relative to other subjects, where the subject is already emphasized relative to the other subjects and/or a request to emphasize a focal plane (and/or one or more objects on a focal place) that is currently emphasized at the second time), the computer system forgoes changing the subject emphasis in the video during the second period of time that follows the second time (e.g., as discussed above in relation to FIG. **6**BD). In some embodiments, in response to detecting the second request to change subject emphasis at the second time and in accordance with a determination that the second request to change subject emphasis at the second time is a request to change the subject emphasis at the second time in video to a second type of subject emphasis that is different from the first type of subject emphasis, the computer system changes the subject emphasis in the video during the second period of time that follows the second time. Forgoing changing the subject emphasis in the video during the second period of time that follows the second time in response to detecting the second request to change subject emphasis at the second time and in accordance with a determination that the second request to change subject emphasis at the second time is a request to change the subject emphasis at the second time in video to the third type of subject emphasis allows the computer system to intelligently forgo applying changes in subject emphasis that are determined to be not needed, which performs an operation when a set of conditions has been met.

Note that details of the processes described above with respect to method **1300** (e.g., FIG. **13**) are also applicable in an analogous manner to the methods described above and/or below. For example, methods **700**, **800**, **900**, and/or **1100** optionally includes one or more of the characteristics of the various methods described above with reference to method **1300**. For example, the method described above in method **1300** can be used to display media in a media editing user interface after the media is captured using one or more techniques described in relation to methods **700** and/or method **1100**. For brevity, these details are not repeated above.

The foregoing description, for purpose of explanation, has been described with reference to specific embodiments. However, the illustrative discussions above are not intended to be exhaustive or to limit the invention to the precise forms disclosed. Many modifications and variations are possible in view of the above teachings. The embodiments were chosen and described in order to best explain the principles of the techniques and their practical applications. Others skilled in the art are thereby enabled to best utilize the techniques and various embodiments with various modifications as are suited to the particular use contemplated.

Although the disclosure and examples have been fully described with reference to the accompanying drawings, it is to be noted that various changes and modifications will become apparent to those skilled in the art. Such changes and modifications are to be understood as being included within the scope of the disclosure and examples as defined by the claims.

As described above, one aspect of the present technology is the gathering and use of data available from various sources to improve how visual media is altered. The present disclosure contemplates that in some instances, this gathered data may include personal information data that uniquely identifies or can be used to contact or locate a specific person. Such personal information data can include demographic data, location-based data, telephone numbers, email addresses, twitter IDs, home addresses, data or records relating to a user's health or level of fitness (e.g., vital signs measurements, medication information, exercise information), date of birth, or any other identifying or personal information.

The present disclosure recognizes that the use of such personal information data, in the present technology, can be used to the benefit of users. For example, the personal information data can be used to alter visual media. Accordingly, use of such personal information data enables users to have calculated control of altering visual media. Further, other uses for personal information data that benefit the user are also contemplated by the present disclosure. For instance, health and fitness data may be used to provide insights into a user's general wellness, or may be used as positive feedback to individuals using technology to pursue wellness goals.

The present disclosure contemplates that the entities responsible for the collection, analysis, disclosure, transfer, storage, or other use of such personal information data will comply with well-established privacy policies and/or privacy practices. In particular, such entities should implement and consistently use privacy policies and practices that are generally recognized as meeting or exceeding industry or governmental requirements for maintaining personal information data private and secure. Such policies should be easily accessible by users, and should be updated as the collection and/or use of data changes. Personal information from users should be collected for legitimate and reasonable uses of the entity and not shared or sold outside of those legitimate uses. Further, such collection/sharing should occur after receiving the informed consent of the users. Additionally, such entities should consider taking any needed steps for safeguarding and securing access to such personal information data and ensuring that others with access to the personal information data adhere to their privacy policies and procedures. Further, such entities can subject themselves to evaluation by third parties to certify their adherence to widely accepted privacy policies and practices. In addition, policies and practices should be adapted for the particular types of personal information data being collected and/or accessed and adapted to applicable laws and standards, including jurisdiction-specific considerations. For instance, in the US, collection of or access to certain health data may be governed by federal and/or state laws, such as the Health Insurance Portability and Accountability Act (HIPAA); whereas health data in other countries may be subject to other regulations and policies and should be handled accordingly. Hence different privacy practices should be maintained for different personal data types in each country.

Despite the foregoing, the present disclosure also contemplates embodiments in which users selectively block the use of, or access to, personal information data. That is, the present disclosure contemplates that hardware and/or software elements can be provided to prevent or block access to such personal information data. For example, in the case of altering visual media, the present technology can be configured to allow users to select to "opt in" or "opt out" of participation in the collection of personal information data during registration for services or anytime thereafter. In another example, users can select not to provide data for altering visual media. In yet another example, users can select to limit the length of time data is maintained or entirely prohibit the altering of visual media. In addition to providing "opt in" and "opt out" options, the present disclosure contemplates providing notifications relating to the access or use of personal information. For instance, a user may be notified upon downloading an app that their personal information data will be accessed and then reminded again just before personal information data is accessed by the app.

Moreover, it is the intent of the present disclosure that personal information data should be managed and handled in a way to minimize risks of unintentional or unauthorized access or use. Risk can be minimized by limiting the collection of data and deleting data once it is no longer needed. In addition, and when applicable, including in certain health related applications, data de-identification can be used to protect a user's privacy. De-identification may be facilitated, when appropriate, by removing specific identifiers (e.g., date of birth, etc.), controlling the amount or specificity of data stored (e.g., collecting location data a city level rather than at an address level), controlling how data is stored (e.g., aggregating data across users), and/or other methods.

Therefore, although the present disclosure broadly covers use of personal information data to implement one or more various disclosed embodiments, the present disclosure also contemplates that the various embodiments can also be implemented without the need for accessing such personal information data. That is, the various embodiments of the present technology are not rendered inoperable due to the lack of all or a portion of such personal information data. For example, visual media can be altered by inferring preferences based on non-personal information data or a bare minimum amount of personal information, such as the content being requested by the device associated with a user, other non-personal information available to alter visual media, or publicly available information.

What is claimed is:

1. A computer system configured to communicate with a display generation component and a plurality of cameras that includes a first camera with first image capture parameters determined by hardware of the first camera and a second camera with second image capture parameters determined by hardware of the second camera, wherein the second image capture parameters are different than the first image capture parameters, the computer system comprising:

one or more processors; and

memory storing one or more programs configured to be executed by the one or more processors, the one or more programs including instructions for:

displaying, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, wherein the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters;

while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point; and

in response to detecting the decrease in distance between the camera location and the focal point location:

in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

2. The computer system of claim **1**, wherein the predetermined threshold distance is based on the first image capture parameters.

3. The computer system of claim **1**, the one or more programs further including instructions for:

while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a request to capture media; and

in response to detecting the request to capture media, capturing media using:

in accordance with a determination that a current distance between the camera location and the focal point location is closer than a second predetermined threshold distance, second visual information collected by the first camera; and

in accordance with a determination that the current distance between the camera location and the focal point location is not closer than the second predetermined threshold distance, second visual information collected by the second camera.

4. The computer system of claim **1**, the one or more programs further including instructions for:

in response to detecting the decrease in distance between the camera location and the focal point location;

in accordance with a determination that the decreased distance between the camera location and the focal point location is not closer than the predetermined threshold distance, forgoing transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using the visual information collected by the second camera to display the representation of the field-of-view.

5. The computer system of claim **1**, wherein the decrease in distance between the camera location and the focal point location is detected based on movement of the computer system.

6. The computer system of claim **1**, wherein the decrease in distance between the camera location and the focal point location is detected based on a new focal point being selected.

7. The computer system of claim **1**, the one or more programs further including instructions for:

while displaying the representation of the field-of-view using visual information collected by the second camera, detecting an increase in distance between the camera location and the focal point location; and

in response to detecting the increase in distance between the camera location and the focal point location:

in accordance with a determination that the increased distance between the camera location and the focal point location is not closer than a third predetermined threshold distance, transitioning from using the visual information collected by the second camera to display the representation of the field-of-view to using visual information collected by the first camera to display the representation of the field-of-view.

8. The computer system of claim **1**, wherein:

the representation of the field-of-view is displayed at an effective zoom level before the decrease in distance between the camera location and the focal point location was detected; and

transitioning from using the visual information collected by the first camera to display the representation of the Field-of-view to using visual information collected by the second camera to display the representation of the field-of-view includes continuing to display the representation of the field-of-view at the effective zoom level.

9. The computer system of claim **1**, wherein transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using the visual information collected by the second camera to display the representation of the field-of-view includes changing an appearance of the representation of the field-of-view.

10. The computer system of claim **1**, wherein:

the first camera is located at a first position on the computer system;

the second camera is located at a second position on the computer system; and

transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view includes displaying the representation of the field-of-view that is shifted to increase alignment between the field-of-view of the first camera and the field-of-view of the second camera near a predetermined portion of the camera user interface than an amount of translation near the predetermined portion while decreasing alignment between the field-of-view of the first camera and the field-of-view of the second camera at one or more portions of the representation of the field-of-view that are further away from the predetermined portion.

11. The computer system of claim **1**, wherein the plurality of cameras includes a third camera with third image capture parameters determined by hardware of the third camera, and wherein the third image capture parameters are different than the first image capture parameters and the second image capture parameters, the one or more programs further including instructions for:

before displaying the representation of the field-of-view using the visual information collected by the first camera with the first image capture parameters, displaying the representation of the field-of-view using visual information collected by the third camera with the third image capture parameters;

while displaying the representation of the field-of-view using the visual information collected by the third camera, detecting a second decrease in distance between the camera location that corresponds to at least one of the plurality of cameras and the focal point location that corresponds to the focal point; and

in response to detecting the second decrease in distance between the camera location and the focal point location:

in accordance with a determination that the second decreased distance between the camera location and the focal point location is closer than a fourth predetermined distance, transitioning from using the visual information collected by the third camera to display the representation of the field-of-view to using the visual information collected by the first camera to display the representation of the field-of-view.

12. The computer system of claim **1**, wherein:

in accordance with a determination that an amount of light in the field-of-view of one or more of the plurality of cameras is above a threshold amount of light, the predetermined threshold distance is a first threshold distance; and

in accordance with a determination that the amount of light in the field-of-view of one or more of the plurality of cameras is not above the threshold amount of light, the predetermined threshold distance is a second threshold distance that is different from the first threshold distance.

13. The computer system of claim **1**, where the first camera has a first fixed focal length and the second camera has a second fixed focal length that is different from the first fixed focal length.

14. The computer system of claim **1**, wherein:

the first camera has a first minimum focal distance;

the second camera has a second minimum focal distance; and

the first minimum focal distance is longer than the second minimum focal distance.

15. The computer system of claim **1**, wherein:

the first camera has a first minimum zoom level;

the second camera has a second minimum zoom level; and

the first minimum zoom level is different than the second minimum zoom level.

16. The computer system of claim **1**, wherein:

the first camera has a first maximum zoom level;

the second camera has a second maximum zoom level; and

the first maximum zoom level is different than the second maximum zoom level.

17. A non-transitory computer-readable storage medium storing one or more programs configured to be executed by one or more processors of a computer system that is in communication with a display generation component and a plurality of cameras that includes a first camera with first image capture parameters determined by hardware of the first camera and a second camera with second image capture parameters determined by hardware of the second camera, wherein the second image capture parameters are different than the first image capture parameters, the one or more programs including instructions for:

displaying, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, wherein the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters;

while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point; and

in response to detecting the decrease in distance between the camera location and the focal point location:

in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

18. The non-transitory computer-readable storage medium of claim **17**, wherein the predetermined threshold distance is based on the first image capture parameters.

19. The non-transitory computer-readable storage medium of claim **17**, the one or more programs further including instructions for:

while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a request to capture media; and

in response to detecting the request to capture media, capturing media using:

in accordance with a determination that a current distance between the camera location and the focal point location is closer than a second predetermined threshold distance, second visual information collected by the first camera; and

in accordance with a determination that the current distance between the camera location and the focal point location is not closer than the second predetermined threshold distance, second visual information collected by the second camera.

20. The non-transitory computer-readable storage medium of claim **17**, the one or more programs further including instructions for:

in response to detecting the decrease in distance between the camera location and the focal point location:

in accordance with a determination that the decreased distance between the camera location and the focal point location is not closer than the predetermined threshold distance, forgoing transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using the visual information collected by the second camera to display the representation of the field-of-view.

21. The non-transitory computer-readable storage medium of claim **17**, wherein the decrease in distance between the camera location and the focal point location is detected based on movement of the computer system.

22. The non-transitory computer-readable storage medium of claim **17**, wherein the decrease in distance between the camera location and the focal point location is detected based on a new focal point being selected.

23. The non-transitory computer-readable storage medium of claim **17**, the one or more programs further including instructions for:

while displaying the representation of the field-of-view using visual information collected by the second camera, detecting an increase in distance between the camera location and the focal point location; and

in response to detecting the increase in distance between the camera location and the focal point location:

in accordance with a determination that the increased distance between the camera location and the focal point location is not closer than a third predetermined threshold distance, transitioning from using the visual information collected by the second camera to display the representation of the field-of-view to using visual information collected by the first camera to display the representation of the field-of-view.

24. The non-transitory computer-readable storage medium of claim **17**, wherein:

the representation of the field-of-view is displayed at an effective zoom level before the decrease in distance between the camera location and the focal point location was detected; and

transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view includes continuing to display the representation of the field-of-view at the effective zoom level.

25. The non-transitory computer-readable storage medium of claim **17**, wherein transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using the visual information collected by the second camera to display the representation of the field-of-view includes changing an appearance of the representation of the field-of-view.

26. The non-transitory computer-readable storage medium of claim **17**, wherein:

the first camera is located at a first position on the computer system;

the second camera is located at a second position on the computer system; and

transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view includes displaying the representation of the field-of-view that is shifted to increase alignment between the field-of-view of the first camera and the field-of-view of the second camera near a predetermined portion of the camera user interface than an amount of translation near the predetermined portion while decreasing alignment between the field-of-view of the first camera and the field-of-view of the second camera at one or more portions of the representation of the field-of-view that are further away from the predetermined portion.

27. The non-transitory computer-readable storage medium of claim **17**, wherein the plurality of cameras includes a third camera with third image capture parameters determined by hardware of the third camera, and wherein the third image capture parameters are different than the first image capture parameters and the second image capture parameters, the one or more programs further including instructions for:

before displaying the representation of the field-of-view using the visual information collected by the first camera with the first image capture parameters, displaying the representation of the field-of-view using visual information collected by the third camera with the third image capture parameters;

while displaying the representation of the field-of-view using the visual information collected by the third camera, detecting a second decrease in distance between the camera location that corresponds to at least one of the plurality of cameras and the focal point location that corresponds to the focal point; and

in response to detecting the second decrease in distance between the camera location and the focal point location:

in accordance with a determination that the second decreased distance between the camera location and the focal point location is closer than a fourth predetermined distance, transitioning from using the visual information collected by the third camera to display the representation of the field-of-view to using the visual information collected by the first camera to display the representation of the field-of-view.

28. The non-transitory computer-readable storage medium of claim **17**, wherein:

in accordance with a determination that an amount of light in the field-of-view of one or more of the plurality of cameras is above a threshold amount of light, the predetermined threshold distance is a first threshold distance; and

in accordance with a determination that the amount of light in the field-of-view of one or more of the plurality of cameras is not above the threshold amount of light, the predetermined threshold distance is a second threshold distance that is different from the first threshold distance.

29. The non-transitory computer-readable storage medium of claim **17**, where the first camera has a first fixed focal length and the second camera has a second fixed focal length that is different from the first fixed focal length.

30. The non-transitory computer-readable storage medium of claim **17**, wherein:

the first camera has a first minimum focal distance;

the second camera has a second minimum focal distance; and

the first minimum focal distance is longer than the second minimum focal distance.

31. The non-transitory computer-readable storage medium of claim **17**, wherein:

the first camera has a first minimum zoom level;

the second camera has a second minimum zoom level; and

the first minimum zoom level is different than the second minimum zoom level.

32. The non-transitory computer-readable storage medium of claim **17**, wherein:

the first camera has a first maximum zoom level;

the second camera has a second maximum zoom level; and

the first maximum zoom level is different than the second maximum zoom level.

33. A method, comprising:

at a computer system that is in communication with a display generation component and a plurality of cameras that includes a first camera with first image capture parameters determined by hardware of the first camera and a second camera with second image capture parameters determined by hardware of the second camera, wherein the second image capture parameters are different than the first image capture parameters:

displaying, via the display generation component, a camera user interface that includes a representation of a field-of-view of one or more of the plurality of cameras, wherein the representation of the field-of-view is displayed using visual information collected by the first camera with the first image capture parameters;

while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a decrease in distance between a camera location that corresponds to at least one of the plurality of cameras and a focal point location that correspond to a focal point; and

in response to detecting the decrease in distance between the camera location and the focal point location:

in accordance with a determination that the decreased distance between the camera location and the focal point location is closer than a predetermined threshold distance, transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view.

34. The method of claim **33**, wherein the predetermined threshold distance is based on the first image capture parameters.

35. The method of claim **33**, further comprising:

while displaying the representation of the field-of-view using the visual information collected by the first camera, detecting a request to capture media; and

in response to detecting the request to capture media, capturing media using:

in accordance with a determination that a current distance between the camera location and the focal point location is closer than a second predetermined threshold distance, second visual information collected by the first camera; and

in accordance with a determination that the current distance between the camera location and the focal point location is not closer than the second predetermined threshold distance, second visual information collected by the second camera.

36. The method of claim **33**, further comprising:

in response to detecting the decrease in distance between the camera location and the focal point location:

in accordance with a determination that the decreased distance between the camera location and the focal point location is not closer than the predetermined threshold distance, forgoing transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using the visual information collected by the second camera to display the representation of the field-of-view.

37. The method of claim **33**, wherein the decrease in distance between the camera location and the focal point location is detected based on movement of the computer system.

38. The method of claim **33**, wherein the decrease in distance between the camera location and the focal point location is detected based on a new focal point being selected.

39. The method of claim **33**, further comprising:

while displaying the representation of the field-of-view using visual information collected by the second camera, detecting an increase in distance between the camera location and the focal point location; and in response to detecting the increase in distance between the camera location and the focal point location:

in accordance with a determination that the increased distance between the camera location and the focal point location is not closer than a third predetermined threshold distance, transitioning from using the visual information collected by the second camera to display the representation of the field-of-view to using visual information collected by the first camera to display the representation of the field-of-view.

40. The method of claim **33**, wherein:

the representation of the field-of-view is displayed at an effective zoom level before the decrease in distance between the camera location and the focal point location was detected; and

transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view includes continuing to display the representation of the field-of-view at the effective zoom level.

41. The method of claim **33**, wherein transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using the visual information collected by the second camera to display the representation of the field-of-view includes changing an appearance of the representation of the field-of-view.

42. The method of claim **33**, wherein:

the first camera is located at a first position on the computer system;

the second camera is located at a second position on the computer system; and

transitioning from using the visual information collected by the first camera to display the representation of the field-of-view to using visual information collected by the second camera to display the representation of the field-of-view includes displaying the representation of the field-of-view that is shifted to increase alignment between the field-of-view of the first camera and the field-of-view of the second camera near a predetermined portion of the camera user interface than an amount of translation near the predetermined portion while decreasing alignment between the field-of-view of the first camera and the field-of-view of the second camera at one or more portions of the representation of the field-of-view that are further away from the predetermined portion.

43. The method of claim **33**, wherein the plurality of cameras includes a third camera with third image capture parameters determined by hardware of the third camera, and wherein the third image capture parameters are different than the first image capture parameters and the second image capture parameters, the method further comprising:

before displaying the representation of the field-of-view using the visual information collected by the first camera with the first image capture parameters, displaying the representation of the field-of-view using visual information collected by the third camera with the third image capture parameters;

while displaying the representation of the field-of-view using the visual information collected by the third camera, detecting a second decrease in distance between the camera location that corresponds to at least one of the plurality of cameras and the focal point location that corresponds to the focal point; and

in response to detecting the second decrease in distance between the camera location and the focal point location:

in accordance with a determination that the second decreased distance between the camera location and the focal point location is closer than a fourth predetermined distance, transitioning from using the visual information collected by the third camera to display the representation of the field-of-view to using the visual information collected by the first camera to display the representation of the field-of-view.

44. The method of claim **33**, wherein:

in accordance with a determination that an amount of light in the field-of-view of one or more of the plurality of cameras is above a threshold amount of light, the predetermined threshold distance is a first threshold distance; and

in accordance with a determination that the amount of light in the field-of-view of one or more of the plurality of cameras is not above the threshold amount of light, the predetermined threshold distance is a second threshold distance that is different from the first threshold distance.

45. The method of claim **33**, where the first camera has a first fixed focal length and the second camera has a second fixed focal length that is different from the first fixed focal length.

46. The method of claim **33**, wherein:

the first camera has a first minimum focal distance;

the second camera has a second minimum focal distance; and

the first minimum focal distance is longer than the second minimum focal distance.

47. The method of claim **33**, wherein:

the first camera has a first minimum zoom level;

the second camera has a second minimum zoom level; and

the first minimum zoom level is different than the second minimum zoom level.

48. The method of claim **33**, wherein:

the first camera has a first maximum zoom level;

the second camera has a second maximum zoom level; and

the first maximum zoom level is different than the second maximum zoom level.

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